From spectacle to relational: an exploration of an emotionally and geographically centred approach to visitor behaviour change at the zoo.

Submitted by Susan Warren, to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Human Geography, June 2019.

I certify that all material in this thesis which is not my own work has been identified and that no material that has previously been submitted and approved for the award of a degree by this or any other University.

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Abstract

This thesis is centred on the zoo, its 21st century mission as a centre for conservation, and specifically within this mission, the aim to engage visitors to undertake pro-environmental behaviours in support of wildlife and wider nature conservation. To date zoos have utilised community-based social marketing as the predominant approach to deliver such behavioural changes. This is reflective of the wider framework for addressing environmental challenges, where a psychologically-based approach to behaviour change has provided the dominant paradigm within western governance. This thesis engages with critique of this paradigm, which has failed to reduce the negative impact of human activities on the natural world, by exploring a richer engagement with the 'more than rational' i.e. emotional aspects of decision making within the context of the zoo. In so doing it mobilises alternative conceptualisations of behaviour change beyond the psychologically-based approach, and scholarship from animal geographies and wider cultural geography. The research methodology engaged an ethnographic approach, to date underutilised in zoo-based visitor studies. This was deployed in three separate phases between November 2016 and September 2017, engaging a total of 41 participants within 14 different participant groups. Go-along interviews at Paignton Zoo, Devon, were used to capture and explore participants' emotional responses to the animals they encountered. Beyond the boundary of the zoo visit, semi-structured interviews enabled exploration of the influence of these zoo-based human-animal encounters on participants' expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world. From a detailed thematic analysis of the empirical data, three key themes were identified: *embodied experience; persistence: the influence of the zoo visit over time and space;* and *opportunities and challenges*. These provide the framing to address the influence of the emotional dimension of human-animal encounters at the zoo in relation to behaviour change. In addition, the research yielded four critical, cross-cutting dimensions, which have provided new and original evidence towards the value of employing an alternative research practice in relation to behaviour change at the zoo, which moves beyond the dominant psychologically-based approach: (i) *the importance of the emotional dimension of human-animal encounters at the zoo as a dynamic element in driving*

potential behaviour change; (ii*) the limitations of social marketing as an approach to engage visitors in wildlife conservation*; (iii) *the practices of visitor engagement at the zoo as a mechanism to deliver behaviour change*; and (iv) *the tensions in delivering the zoo's behaviour change agenda alongside its other aims.*

Dedication

This thesis is dedicated to my mum, who opened my heart to the magic and beauty of the natural world. Our many trips to London and Jersey zoos will always provide me with such happy memories of our time together.

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Chapter 1: Introduction

1.1 Context

1.1.1 Human impacts on the natural environment

Today we face major challenges in relation to the future sustainability of the Earth, including climate change and the loss of, and increasing threats to, the planet's biodiversity. Such is the extent of human impacts on the natural world, that the term 'Anthropocene', associated with the geologist Paul Crutzen (2002), has been increasingly accepted to denote a new epoch in the Earth's history (Lorimer, 2015). The 2019 Global Assessment on Biodiversity and Ecosystem Services, produced by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, 2019), identifies the unprecedented nature of these human-induced threats, within the region of one million animal and plant species now threatened with extinction, many within decades (IPBES, 2019). Other recent reports have also served to reinforce and provide new evidence in relation to the impact of human activities on the continued decline of biodiversity (Grooten and Almond, 2018; Hayhow et al., 2016), and the impacts of climate change (IPCC, 2018).

1.1.2 Responding to environmental challenges

Whilst common parlance today, the concept of sustainable development only emerged in the late 1980s in the report of the Bruntland Commission - Our Common Future (United Nations, 1987). Although subject to a variety of definitions, Our Common Future describes sustainable development as "…development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (ibid). This report placed environmental issues firmly on the political agenda and provided the basis for the 1992 United Nations Conference on Environment and Development, more commonly referred to as the Rio Earth Summit (United Nations, 2017). This report and the ensuing summit led to the production of documents including: the United Nations Framework Convention on Climate Change; the Convention on Biological Diversity; and Agenda 21 (United Nations, 2017) which all aimed to tackle and reduce human induced environmental and biological degradation and loss.

How individuals and wider society have sought to address these environmental challenges is a matter for ongoing debate and action. The approach adopted within neoliberal western governance has centred on a very specific approach, focused on a psychologically-based framework. Over the past 20 years, this approach has provided the dominant paradigm in the UK government's attempts to reduce the negative impacts of human activities on the natural world, and to secure more sustainable ways of living (Whitehead et al., 2011; DEFRA, 2008; DEFRA, 2011). Framed within an epistemology which defines pro-environmental behaviour in a very specific, pre-determined and quantifiable manner, and a methodology that places responsibility for securing environmental sustainability firmly at the door of individual 'citizen-consumers' (Clarke et al., 2007), social marketing (French et al., 2009) has proved the most popular framework for operationalising this psychological approach.

The utility and reliance on the social marketing approach has been increasingly brought into question as a range of policy initiatives have failed to meaningfully tackle environmental issues (Huddart Kennedy et al., 2015). The most recent 'Living Planet' report (Grooten and Almond, 2018) identifies that the current efforts to protect nature are not ambitious enough to match the scale of the threats to the planet, and that "…without a dramatic move beyond 'business as usual' the current severe decline of the natural systems that support modern societies will continue" (p.8).

In critiquing the inability of the psychologically-based approach to deliver the necessary scale or rate of behaviour change, a range of alternative approaches to engaging with behaviour change for environmental sustainability have emerged from within the social sciences. Significant within these has been a recognition by geographers and other environmental social scientists of the need to more fully embrace the 'more than rational' i.e. emotional aspects of individual behavioural decisions (Whitehead et al., 2011; Jones et al., 2014). Explorations of the importance of human identity (Crompton and Kasser, 2009), values and frames (Crompton 2010), and the notion of environmental citizenship (Dobson, 2010), in influencing attitudes and behaviours towards the

environment highlight the value and utility of engaging more fully with the emotional dimension of decision making. Alongside a richer consideration of this emotional dimension, scholarship within geography has also sought to identify the importance of place in influencing behaviours (Barr et al., 2011; Whitehead et al., 2011). Through exploring the zoo as a specific context which seeks to raise awareness of wildlife conservation and to encourage visitors to undertake pro-environmental behaviours, this thesis engages with these more emotionally and geographically-centred conceptualisations of behaviour change to provide a basis for the research aim and objectives, and to aid in the analysis and interpretation of the empirical material.

Moving away from a focus on the individual, social practice theory (Shove, 2010; Shove et al., 2012) conceptualises the complex network of institutions, routines and social norms within which we operate, or are 'locked into' (Jackson, 2005), as being primarily responsible for determining how we live, and thus the environmental degradation and unsustainable lifestyles that result (Shove et al., 2012). This framing posited by social practice theory refocuses the debate regarding sustainable lifestyles to one which centres on why we live and consume in the ways that we do, and by doing so "socialising" UK sustainable development policy and practice (Barr, 2014 p.233). Whilst this thesis centres on the engagement of individual visitors to the zoo in terms of pro-environmental behaviour, it also draws on the lens of social practice theory to aid exploration of the empirical data.

1.1.2.1 The role of the zoo in behaviour change for sustainability

Alongside government, a range of environmental and wildlife organisations are actively involved in raising awareness of, and taking action to address, environmental challenges. Amongst such organisations are zoos and aquariums, which today position themselves as centres for conservation (Rabb, 1994; Rabb and Saunders, 2005), having evolved and reimagined themselves from their previous incarnations, first as menageries and then zoological parks (Keulartz, 2015). Fundamental to their role as a centre for conservation is the education of their visiting public. Through their education and engagement programmes, zoos aim to increase awareness of the challenges faced by

endangered species and the wider natural world, and in response, to secure a range of pro-environmental behaviours from their visitors (WAZA, 2015).

With over 700 million visitors per annum to zoos and aquariums worldwide (Moss et al., 2014), from a range of socio-demographic backgrounds (Weiler and Smith, 2009), these organisations have the potential to engage with and influence a substantial cohort of people. To date they have primarily followed a route which is informed by the psychological approach dominant in neoliberal governance, utilising a form of social marketing, community-based social marketing (McKenzie Mohr, 2011), in their efforts to engage visitors in pro-environmental behaviours.

A small body of research has sought to evaluate the success of social marketing campaigns in securing particular pro-environmental behaviours from zoo visitors (Kemmerly and Macfarlane, 2009; Pearson et al., 2014; MacDonald, 2015). However, research has not been undertaken either to critique the efficacy of this psychologically-based approach or to explore how alternative theoretical conceptualisations of behaviour change could be utilised to help inform the approach to behaviour change at the zoo. Other zoo-based visitor research studies, primarily psychologically-based, have started to explore the emotional dimension of human-animal encounters at the zoo (Swanagan, 2000; Myers et al., 2004; Clayton, 2009; Clayton et al., 2011). This has revealed the potential of visitors' experiences at the zoo to prompt emotional responses of care, concern and empathy for the animals encountered. These studies are suggestive of the potential for the zoo visit to influence human-animal relationships and visitors' willingness to engage in issues of wildlife conservation. However, to date this exploration of the emotional dimension of the zoo experience has not been considered in relation to the dominant social marketing approach to behaviour change at the zoo.

1.1.3 Animal geographies

Moving beyond the boundary of the zoo, a wide range of research has sought to explore human-animal relationships in a variety of settings. Significant amongst this in the context of this thesis is scholarship in animal geographies which

highlights, amongst many themes, the potential in exploring the relationality of human-animal engagements. From its beginnings as an exercise in traditional geographical and biological methods of mapping and classification, animal geography has emerged into a rich, complex and challenging field of enquiry (Buller, 2014). At its heart, this sub-discipline seeks to challenge the ontological separation of human/nature, embedded within western society (Harraway, 1992). Through this lens the interrelationships and entanglements of humans and animals are acknowledged and explored, alongside the lives of the animals themselves in their own right. In pursuit of this relational approach, a variety of research has explored the meanings of human-animal relations and the scales at which they are operating (Buller, 2015).

Whilst not extensive, geographical enquiry at the zoo has explored a variety of themes pertinent to animal geography. However, exploration of the nature of human encounters with animals at the zoo has been remote, often approached more through theoretical conceptualisation (Anderson, 1995; Davies, 2000) or from the more one-sided angle of engagement with professionals working within zoos either in the UK (Whatmore and Thorne, 2000) or North America (Braverman, 2013). As yet the relationality of human-animal encounters in the context of visits to the zoo has not been studied in the field. Within this study it is mobilised to help inform an alternative approach to engaging visitors in the behaviour change agenda of the zoo.

In support of the exploration of this relational engagement, the thesis also draws on conceptualisations of emotion and affect in cultural geography (Anderson, 2006; Pile, 2010). This provides a framework to aid understanding and definition of the study's focus on the verbally-expressed emotional responses to visitors' encounters with animals at the zoo, and their expressed feeling towards endangered wildlife and the wider natural world as a result of their experiences at the zoo.

1.2 Research aim and objectives

This research study focuses on applying an emotionally and geographically centred approach to visitor-based behaviour change within the specific context

of the zoo, through an ethnographic study of visitor engagement at Paignton Zoo, Devon. This enables an exploration of the emotional dimension of visitors' responses to encounters with animals at the zoo, and how these may travel over time and space beyond the boundary of the zoo, and zoo visit, to influence both expressed feelings towards endangered wildlife and wider nature, and pro-environmental behaviours. This reframes the current psychologically-based approach to behaviour change at the zoo both conceptually and methodologically. In so doing it seeks to broaden understanding of the potentiality of the zoo community to engage its visitors in pro-environmental behaviours.

Aim:

To explore how an emotionally and geographically centred approach to visitor engagement can contribute to the delivery of the behaviour change agenda of the zoo.

In order to explore this aim, three empirical research objectives were developed. The first centres on participants' experiences of their encounters with animals during their visit to the zoo. The second and third are set beyond the boundary of the zoo visit, and are centred on these participants' reflections of their experiences at the zoo, up to three weeks after the zoo visit.

Objective 1:

During the zoo visit: To identify and explore the emotional responses of visitors to their encounters with animals at the zoo.

Objective 2:

Beyond the boundary of the zoo visit: To identify and explore the influence of visitors' emotional responses to their encounters with animals at the zoo on their expressed feelings towards, and pro-environmental behaviours in support of, the conservation of endangered wildlife and the wider natural world.

Objective 3:

Beyond the boundary of the zoo visit: To explore ways in which the zoo can increase visitor engagement in pro-environmental behaviours in support of the conservation of endangered wildlife and the wider natural world.

In describing visitors' emotional responses within this thesis, 'emotions' are understood in terms of Anderson's (2006) conceptualisation. As one of the three dimensions of affect, emotions are expressed feelings, both conscious and experienced. Although emotions emerge from feelings, and represent personal experience, they are socially constructed through language and other representational practices. In addition, throughout the thesis, the phrase "pro-environmental behaviours in support of" is used to mean actions which people undertake which they understand (or hope) will make some direct/indirect difference to the lives of endangered wildlife and/or the future sustainability of the habitats and ecosystems within which these species reside in the wild. As this thesis will describe and explain, much of this understanding has been influenced by the dominant psychologically-based approach to behaviour change, which sets out individual responsibility for helping to address environmental challenges through a series of pre-determined and prescribed pro-environmental behaviours.

1.3 Research and approach

1.3.1 Personal motivations for undertaking this research

Prior to taking up the role of PhD researcher, I had spent 25 years working primarily within the voluntary sector for a number of local, regional and national organisations in the arenas of nature conservation, environmental sustainability and community development. My most recent posts prior to the PhD were as Director of Development and Policy at Devon Wildlife Trust and as a DEFRA appointed non-executive director of the National Forest Company. All my practitioner roles have been situated at the challenging but exciting interface of people and nature: everything from working with individuals and communities to safeguard and enhance the wildlife and green spaces on their doorstep, to working with farmers to rebuild habitats and ecosystems. There has been a systematic thread throughout the many strands and forms of this work:

exploring and endeavoring to make sense of how people experience, value and act in relation to the natural world.

This career had been extremely interesting and rewarding. However, the ever-present pressure to fund and deliver a diverse portfolio of projects, left little time for broader reflection regarding the capacity of such projects to make a meaningful contribution in relation to the pressing environmental challenges that we sought to address. For me this was particularly marked in relation to the engagement of the general public in wildlife conservation. In addition, with an academic background in physical geography and environmental science, I had become increasingly aware of my lack of social science expertise with regard to methodological approaches to the engagement of individuals and communities. Indeed, this lack of expertise is a broader issue across the environmental sector, with its strong tradition in ecology and conservation biology, and their associated positivist research tradition. Given these issues, I did not feel that it was possible for me to continue working as I had during the next phase of my career. This insight led me to conceive of undertaking a PhD to enable me to gain new knowledge and skills which would enhance my capacities as a practitioner in the future. The opportunity to pursue this avenue of research within the context of the zoo, where I had had encounters with animals over many years, both in the UK and overseas, provided an interesting and exciting challenge, as I had not previously engaged with zoos in a professional capacity.

1.3.2 Research setting

1.3.2.1 Establishment of research partnership and sponsorship

This thesis is the result of a collaboration between the project sponsor, the Whitley Wildlife Conservation Trust (WWCT), and the University of Exeter. It should be noted that as of June 2019, the WWCT changed its name to the Wild Planet Trust. However, throughout this thesis, the terminology of the WWCT is used.

The WWCT was established in 1955 to receive the legacy of its founder, Herbert Whitley. Today it owns and operates three wildlife attractions: Paignton

Zoo and Living Coasts in Devon; and Newquay Zoo in Cornwall. Alongside these wildlife attractions, the WWCT owns and manages three nature reserves in Devon (Slapton Ley National Nature Reserve, Primley Park and Clennon Gorge). Whilst public engagement and education had always been a central tenet of the Trust's work, the 2013-2020 Strategic Plan (WWCT, 2013) was the first time that the Trust had formalised its commitment to engaging its visitors and the wider community in "…behaviour change for the benefit of biodiversity" (WWCT, 2013 p.2).

In line with the wider zoo community, the WWCT has adopted the social-marketing approach in pursuit of its behaviour change aim. However, the Trust's Director of Research and Education was interested in exploring other ways in which zoos might encourage and support visitors to change or adopt new pro-environmental behaviours. The WWCT had had previous success in securing and developing expertise in the areas of ecology, animal behaviour, and nutrition through a funding model allowing for part-time PhD study alongside a role as a member of staff. Therefore, the Trust decided to pursue this model in relation to further exploration of its behaviour change agenda.

In pursuit of a suitable academic partner for this PhD, the Trust's Director of Research and Education initially approached the Department of Psychology, in the College of Life and Environmental Science (CLES), at the University of Exeter. This was due to strong existing links in the arena of animal behaviour research, but these enquiries did not initially bear fruit. However, through contact with an Impact and Partnership Development Manager at the University, based in CLES, an approach was made to the University's Department of Geography, due to their expertise and research portfolio in the arena of pro-environmental behaviours. From this initial contact, a research proposal was developed and subsequently approved by the WWCT, which committed to providing funding for a PhD researcher for a four-year period. Working for the WWCT as a part-time (nominally one day a week) Advocacy Officer was also included as part of the remit of the PhD, to help support the development of the Trust's approach to behaviour change across all three of its wildlife attractions.

1.3.2.2 Fieldwork site

The fieldwork conducted for this thesis was undertaken at Paignton Zoo. Situated on the edge of the seaside town of Paignton in Devon, UK, it is the longest standing of the Trust's three sites. Originally it was home to the private collection of Herbert Whitley, who opened it to the public in 1923 as Torbay Zoological Gardens (Knowling, 2005). Following various name changes and developments of the site, in 1996 it became Paignton Zoo Environmental Park (ibid).

Today the site covers over 80 acres (>300,000 m^2). It houses approximately 300 species and over 2,500 animals across all taxonomic groups, and includes animals ranging from great apes, big cats, rhino, elephant and giraffe through to hyacinth macaws, cassowary, and the Vietnamese mossy frog (Gurney, 2016). In addition to the animals, the zoo has a range of non-animal elements including a restaurant, shop, refreshment kiosks, indoor and outdoor children's play areas, a miniature train, picnic areas and areas of park land (ibid). In the three years from 2014 to 2017 Paignton Zoo received an average of approximately 463,250 visitors per annum (I Warren, 2018, personal communication, 8th February).

1.3.3 Outline of research strategy

Overall this research study has employed a qualitative research strategy, which provided the framing for an original ethnographic approach, enabling direct engagement with visitors to the zoo, both during the zoo visit and beyond the boundary of the zoo visit, across the wider temporality of possible behaviour change. This represented a novel approach to zoo-based visitor studies, where the dominance of a psychologically-based approach has led to primarily quantitatively-based research in this area. During the zoo visit a mobile methodology, the go-along interview, was deployed, which has not previously been utilised with visitors at the zoo. A more conventional semi-structured interview was utilised to discuss visitors' experiences at the zoo up to three weeks following the visit. Such reflection, both spatially and temporally remote from the moments of encounter with animals at the zoo, is also uncommon

within zoo-based visitor studies, which focus primarily on visitor experiences within the boundary of the zoo and zoo visit.

Fieldwork was undertaken in three distinct phases between November 2016 and September 2017. In total it involved 14 visitor units (groups of visitors to the zoo, ranging from individuals, to couples, family and friendship groups). These visitor units were interviewed twice: via the go-along at the zoo, and through the post-zoo visit semi-structured interview. Data were collected by means of audio-recording of interviews with participants. These recordings were subsequently transcribed. These data were complemented with additional resources which I generated in the form of (i) field notes taken to capture information and reflections immediately after each interview; and (ii) research diary entries. The latter were used as a depository for my reflections on my role as part-time WWCT Advocacy Officer, and on my research visits to two North American zoos, which took place in June 2017.

The data collected in the field were subject to analysis, although as is common within an ethnographic approach, the analytical process had already commenced through the process of reflections in my field and research diaries, and through the process of transcription. Through the process of thematic analysis, a detailed coding framework was developed for the zoo-based go-along interview and the post-zoo visit interview. Each theme was able to draw together data categorised under different codes (and across zoo and post zoo visit interviews) to capture the key aspects of the data to give insight into one or more of the three research objectives. Finally, the empirical data were written up in the form of a narrative. The approach to writing up centred on the representation of discussions with participants during the two interviews, using a wide range of verbatim quotes. Photographic and other visual materials were also included as appropriate, to aid in the portrayal of: (i) participants' encounters with animals at the zoo; and (ii) issues in relation to visitor engagement on site at the zoo. Further details of the research strategy and methodology are discussed in Chapter 4.

1.4 Research contributions

This research study has brought a new and alternative conceptual framing as a means to explore visitors' experiences at the zoo in relation to the zoo's behaviour change agenda. The value of this conceptual framing is demonstrated through the empirical evidence collected through a qualitative methodological approach, which is counter to the predominance of quantitatively-based research within zoo-based visitor studies. Deploying this approach included the use of a mobile methodology, the go-along interview, not previously employed with visitors at the zoo. The resulting empirical evidence, presented and explored in the empirical chapters (Chapters 5, 6 and 7) addresses the study's three research objectives.

In addition, this study's conceptual framing yields four critical, cross-cutting dimensions. These provide new and original evidence of the value of employing an alternative research practice in relation to behaviour change at the zoo, which moves beyond the psychologically-based social marketing approach currently predominant within the zoo community. These dimensions, which are described detail in Chapter 8, centre on:

(i) the importance of the emotional dimension of human-animal encounters at the zoo as a dynamic element in driving potential behaviour change;
(ii) the limitations of social marketing as an approach to engage visitors in wildlife conservation;
(iii) the practices of visitor engagement at the zoo as a mechanism to deliver behaviour change; and
(iv) the tensions in delivering the zoo's behaviour change agenda alongside its other aims.

These findings are central to this thesis' original contribution. In addition, given the wildlife conservation mission of the zoo community, and its relatively recent engagement with the behaviour change agenda, they are also very timely in stimulating debate as to how zoos conceive of, deliver, and evaluate visitor engagement in pro-environmental behaviours.

1.5 Thesis structure

This thesis is structured to include four main elements:

1.5.1 Literature review: Chapters 2 and 3

These two chapters provide a review of relevant literature which was drawn upon in developing the rationale, aim and objectives for this research study. This literature falls into two main areas which reflect, and provide a more detailed account of, the contextual themes discussed in Section 1.2 of this chapter. Through an exploration of: (i) behaviour change politics, theory and practice; and (ii) human-animal relations (both within and beyond the boundary of the zoo), this literature review highlights the limitations of the psychologically-based approach to behaviour change both at the societal level, and within the specific context of the zoo. In so doing it also identifies the potentiality of the emotional dimension of human-animal relationships as a means of providing an alternative framing of behaviour change, an avenue that as yet has not been explored by the zoo community.

1.5.2 Methodology: Chapter 4

This chapter provides an account of the methodology applied to engaging with visitors to the zoo in order to address the research aim and three associated objectives. As a novel and previously untested approach to zoo-based visitor studies, this account is necessarily detailed, in particular to facilitate understanding and possible replication from other scholars with the zoo and wider research community.

1.5.3 Empirical analysis: Chapters 5, 6 and 7

These three chapters describe the key findings from this research. Each chapter addresses one of the three research objectives, and is framed using one of the three substantive themes which emerged from the thematic analysis of the data.

1.5.4 Discussion and reflections: Chapter 8

This concluding chapter describes and explores the four critical, cross-cutting dimensions yielded through this study's conceptual framing, in relation to behaviour change studies at the zoo. In addition, it includes my reflections on the research process, and offers some suggestions for the further exploration of an emotionally and geographically-centred approach to behaviour change studies within the zoo community.

Chapter 2: Human behaviour change for sustainability: politics, theory and practice

2.1 Introduction

This is the first of two chapters which provide a review of relevant literatures which were drawn upon in developing the rationale, aim and objectives for this research study. It centres on the political, theoretical and practical application of approaches which aim to deliver pro-environmental behaviours, and in so doing reduce the negative impacts of human activities on the natural world.

At its outset, the chapter describes how in response to the major environmental challenges that we currently face, the approach adopted within neoliberal western governance has centred on a very specific, psychologically-based framework. This approach has focused at the level of the individual, attempting to deliver more environmentally responsible and sustainable lifestyles from its citizen-consumers (Clarke et al., 2007). The evolution of this dominant behaviour change paradigm is exemplified by an exploration of UK environmental policy, alongside a consideration of a variety of theoretical models which have sought to provide a means to predict individual behaviour.

In considering the application of this psychologically-based approach, the chapter then highlights critique from within the social sciences of this framework's ability to deliver the nature or scale of change required to address environmental challenges. It then goes on to explore how this critique has led to the emergence of a range of alternative frameworks and conceptualisations of behaviour change, which have centred on: (i) a richer engagement with the 'more than rational' or emotional dimensions of individual decision making; (ii) the exploration of the site of practice in influencing behavioural decisions and actions; and (iii) the utilisation of social theory to move the framework for behaviour change away from the scale of the individual actor to the wider systems and structures within which individual lives are enacted.

2.2 The political landscape of behaviour change in the UK

2.2.1 Emergence of the psychologically-based approach to behaviour change

Until the early years of the 21st century, neoclassical economic theory (emanating from the work of Adam Smith and the Chicago School of Economics) has provided a framework for UK Government policy, guiding both government operation and approaches to delivering social change (Jackson, 2005; Whitehead et al., 2011). Within such a policy framework the conventional theory of market action guides and drives decisions and behaviours, so that market forces punish ill-conceived choices and correct these patterns of decision making in the future (Whitehead et al., 2011). At an individual level, it is assumed that in any given situation, the consumer will make a rational, informed and predictable choice (Jackson, 2005). These choices are the result of a deliberate cognitive process, and are made on the basis of expectancy value theory i.e. people make decisions based on the expected outcomes from a choice, and the value attached to those outcomes (Jackson, 2005).

This framework for social change was exemplified by the New Public Management Approach within UK Government during the early 1990s, which emphasised the use of market principles including prices and tariffs as mechanisms to address social change (Whitehead et al., 2011). Specifically, in relation to the sustainable development agenda, environmental policy during this time and into the early 2000s was based on information campaigns, financial incentives and the law (Whitehead et al., 2011). The information-based approach was exemplified by two campaigns: ‘Are you doing your bit?’ a transport-focused initiative during the late 1990’s (DETR, 2000); and ‘Act on CO2 Campaign’ in the 2000’s, a government-wide communication campaign aimed at tackling climate change (The National Archives, 2010).

This economically based approach took a very particular and rather narrow view of the decision-making process, and did not take account of a wide range of other factors which can exert an influence upon decision-making, including: emotions; habits; and the wider social context within which a behaviour takes place (Jackson, 2005). Because of these limitations, the inability of this policy

framework to drive and control people's behaviours was increasingly realised by government - in the case of environmental campaigns, these failed to reduce unsustainable behaviours (Whitehead et al., 2011). This paved the way for an alternative approach to delivering social change, which led to the rise of the behaviour change agenda (Jones et al., 2014).

Drawing strongly on the disciplines of behavioural economics and psychology, the psychological approach to the modelling and prediction of behaviour change has provided the dominant paradigm for the UK Government's approach to securing changes in society, notably with regard to the environmental policy (Barr et al., 2011; Whitehead et al., 2011). It is founded on the premise that humans do not make decisions in accordance with the standard rational choice economic model, acknowledging that individuals are 'more than rational' in their behaviours (Whitehead et al., 2011). The UK's Missionary Government Report (Demos, 1995) created both a rationale and niche for a psychologically-based approach to influencing human behaviours, and a practical guide to implement behavioural change in the arenas of financial decision making, public health, environmental management, and community life (Whitehead et al., 2011).

2.2.2 The emergence of the citizen-consumer

The acceptance and utilisation of this particular conceptualisation of behaviour change relates to wider changes in the political economy during the late modern period, where a shift towards neo-liberal models of governance led to the emergence of a new relationship between the state and the individual (Giddens, 1991). Within this neoliberal model the state enacts a type of liberal paternalism, where the individual citizen is co-opted as an active agent in the delivery of social goals that would previously have been seen as the role of the state (Whitehead et al., 2011; Barr, 2014). Clarke et al. (2007) in charting this reconfiguration of the state-individual relationship, coin the term 'citizen-consumer' to describe this new form of citizenry.

Thus, the pursuit of the neo-liberal agenda has shaped the approach to behaviour change (Jones et al., 2013a; Barr, 2014), with the emphasis on the citizen-consumer as the agent of change. In order to secure changes in society,

for example a move to more sustainable lifestyles, government focus on the need to change individual behaviours, rather than considering the wider structures, policies and over-arching approach to governance, which set the overall context within which individuals carry out their everyday lives. In recent times different political parties within the UK have interpreted the behaviour change agenda in terms of the state-individual relationship in different ways. For New Labour it provided a legitimacy for intervening in a broader suite of everyday activities in behaviours, whereas for the Coalition and for the current Conservative government, it has provided a justification for constructing a much smaller state and for the concept of Big Society, where the onus for delivering public policy within many sectors, falls to the individual, rather than the state (Whitehead et al., 2011). However, under each political leadership, the focus has remained squarely at the feet of the individual citizen-consumer.

2.2.2.1 The rise of neoliberal environmentalism

The rise of the neoliberal agenda has also shaped the role of the state and society specifically in relation to wildlife conservation. This “neoliberalism of environmentalism” (Lorimer, 2015 p.142) has seen a decline in the funding and delivery of wildlife conservation work by the state, with these activities increasingly undertaken by the non-profit/non-governmental sector. The impact of this shift has been a progressive commodification of wildlife, as environmental organisations seek to encourage private sector investment in support of their work (ibid). In addition, these organisations have increasingly framed both their members and the wider general public as citizen-consumers, or as Lorimer (2015) describes “…less as members of civil society and more as active, ethical consumers” (p.142). With this framing of the individual, environmental organisations seek to co-opt individuals to provide a source of income generation for conservation work, through the commodification of the natural world.

2.3 The rise of social marketing in behaviour change policy and practice

In line with this new behaviour change agenda, the old-style information and awareness raising campaigns were replaced in the UK by a social marketing approach. Emanating from the psychological modelling of human decision making, this framework has come to underpin government behaviour change strategies (Barr, 2014). Social marketing utilises techniques derived from mainstream marketing and uses these to promote a social good (French et al.., 2009). In order to secure a desired behavioural outcome, this approach requires detailed knowledge and segmentation of the audience group(s) being targeted, and understanding of their perceived barrier(s) to undertaking a new behaviour. Utilising this information, an appropriate 'marketing mix' is designed that will deliver the desired change in behaviour within each audience segment.

A wide-ranging strategic policy document 'MINDSPACE: Influencing Behaviour Through Public Policy' (Cabinet Office, 2010), explored how new forms of behavioural theory could be applied to the public sector across the arenas of personal health, environmental management, community life and financial decision making, identifying that "Influencing behaviour is central to public policy, and government can draw on a potentially powerful new set of tools" (Jones et al., 2013 p.7). Specifically, in relation to the environmental agenda, Securing the Future – the UK Government Sustainable Development Strategy (DEFRA, 2005), can be viewed as the first major example of the influence of the behaviour sciences on UK government policy (Jones et al., 2013a). This led to the establishment of the (now defunct) Sustainable Development Commission, with a remit of public engagement in relation to lifestyles and sustainable consumption.

Emerging from this strategic policy framing, the UK Government's environmental policy was operationalised in the form of two key documents: A Framework for Pro-Environmental Behaviours (DEFRA, 2008); and The Sustainable Lifestyles Framework (DEFRA, 2011). Both were framed by the need for changes in individual lifestyles and consumption practices to address the increasing problems associated with climate change (Barr et al., 2011). The

2008 document established five ‘Priority Behaviour Groups’ (p.25), which provided a prescribed set of pro-environmental behaviours to be undertaken by individuals. These behaviour groups were described as follows:

- Personal transport: Travel more responsibly, cut reliance on car
- In the Home: Energy Efficiency/Energy Usage
- In the Home (& Garden): Water efficiency
- Buy more Eco-friendly products
- In the Home (& Garden): Waste: Reduce, Re-use, Recycle and Compost

The 2011 (DEFRA) document sought to build on this framework, extending the “…set of key behaviours that constitute a sustainable lifestyle…” (p.1), to include (p.13):

- Cooking and managing a sustainable and healthier diet
- Setting up and using resources in your community
- Using and future-proofing outdoor spaces
- Being part of improving the environment

These documents set out a very particular epistemology of behaviour change – what is necessary and required of individuals to secure more sustainable patterns of individual consumption, which it is anticipated will enable key environmental challenges, in particular climate change, to be addressed. There is clearly a strong geographical bias set within this epistemology, as the prescribed behaviours are centred on those practices undertaken largely in and around the home. These actions are commonly understood and referred to, in both scholarship and popular media as pro-environmental behaviours, although some, particularly related to providing food or shelter for local wildlife, are sometimes termed pro-wildlife behaviours.

In seeking to deliver this citizen-consumer based approach to behaviour change, the UK Government adopted a particular form of social marketing known as ‘Nudge’ (Thaler and Sunstein, 2008). This draws on psychology and consumer behaviour studies to influence the choices and behaviours of an individual through the manipulation of the context in which the decision is made

(Barr, 2014). These contexts are referred to as 'choice architectures', which rather than telling individuals what to do, steer and influence them in a particular way: "Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not" (Thaler and Sunstein, 2008 p.8). In this way 'nudges' seek to both rationalise the irrationalities of individual behavioural choices and the problems presented by neoclassical economics, rather than conceiving of a new and more radical approach (Jones et al., 2013a). In its attempts to prompt or regulate change, the state exerts its power and influence over the availability and acceptance of choices open to the consumer-citizen operating within a neo-capitalist framework (Barr, 2014). Methodologically this highlights how social marketing aligns well with the over-arching neoliberal political framework, with its focus on securing pre-determined, specific behaviours from an individual, rather than providing an opportunity to question political and economic values behind policy goals of the behaviour change agenda (Shove 2010; Barr 2014).

Since their publication these documents (DEFRA, 2008; DEFRA, 2011), have continued to frame the approach to behaviour change for sustainability. In 2018 the government published: A Green Future: Our 25 Year Plan to Improve the Environment (DEFRA, 2018). This makes reference to: "Scoping out an evidence-based behaviour change strategy to enable further actions by individual, communities, businesses and government beyond 2019" (p.82). However, this plan is not suggestive of a fundamental shift away from the existing psychologically-based approach to securing pro-environmental behaviours.

2.4 Modelling of the psychological approach to behaviour change

In moving away from the rational choice model of human decision-making, and in an attempt to capture, understand and predict human choices within the new framework of behaviour change, a wide range of social psychological models of consumer behaviour have been developed within the academic literature (Jackson, 2005; Jones et al., 2013a). Jackson (2005) provides a summary of 22 such models, which draw on a range of factors (e.g. values, social norms and

personal agency) that can influence behaviour, and exhibit varying degrees of complexity in their attempts to understand and predict an individual's decision-making process. In broad terms these models can be divided into two different types, based on how they have sought to either build on, or move beyond, the foundation of rational choice economics.

One type of model has sought to adapt the rational choice model of expectancy value theory by incorporating an individual's pre-existing psychological determinants of behaviour, alongside the potential influence of other people on that individual's decisions (Jackson, 2005). This is exemplified by the work of psychologists Fishbein and Ajzen, who developed the Theory of Reasoned Action (Fishbein and Ajzen – cited in Jackson, 2015) and the Theory of Planned Behaviour, Ajzen (1991). The former builds on the expectancy-value construction and incorporates an individual's attitudes, wider subjective norms, and perceived intentions as they key elements to predicting behavioural outcomes. The latter further extends this to include an additional element termed 'perceived behavioural control', which is the extent to which an individual has a sense of agency in relation to undertaking a particular behaviour. The Theory of Planned Behaviour has been used extensively in the literature to explore pro-environmental behaviours (Jackson, 2005). However, like other models of its genre, it does not address the influence of normative aspects of behaviour i.e. habit, or the potential impact of affective or moral factors on individual behaviours (Jackson, 2005).

In contrast, the other type of model has moved beyond a basis in, and the limitations of, rational choice economics, to include other dimensions of the human decision-making process such as values and moral beliefs. Examples of this include Norm Activation theory (Schwartz, 1977), and the Value-Belief-Norm theory (Stern et al., 1999) of pro-environmental behaviour, which brings together the Norm Activation model with ecological value theory (Jackson, 2005). The latter, based on the New Environmental Paradigm (NEP)(Dunlap and van Liere, 1978), is a measure of how much an individual endorses a pro-ecological world view. In the case of Value-Belief-Norm theory, the acceptance and belief of the NEP determines the individual's awareness of the

consequences of a particular action. The acceptance of the NEP is positively correlated with the awareness of the environmental consequences of that action, which in turn leads an individual to become aware of their responsibility to reduce those consequences. And the level of belief in the NEP is also positively correlated with biospheric and altruistic values and negatively with egoistic values.

As in the case of the Theory of Planned Behaviour, both Norm Activation Theory and Value-Belief-Norm theory have been widely utilised and adapted to understand and predict pro-environmental behaviour (Huddart Kennedy et al., 2015). Whilst this type of modelling has sought to incorporate wider dimensions of an individual's decision-making process, its predictive powers are still questionable (Jackson, 2005). Indeed, in coining the term 'value-action gap' to refer to the inability of such models to accurately predict behaviour, Kollumuss and Agyeman (2002) identify the complexity at play in shaping pro-environmental behaviours.

2.5 The limitations of the psychologically-based approach to behaviour change

Despite a wealth of psychologically driven theoretical modelling and practical application to government policy and campaigns, the emergence of the behaviour change agenda and behavioural sciences has not been a panacea for societal problems. There has been a lack of major progress in tackling challenges across a range of policy issues (Jones et al., 2013b), including the environmental agenda (Huddart Kennedy et al.., 2015). The failure to address these challenges is perhaps exemplified by the most recent 'Living Planet' report (Grooten and Almond, 2018). Produced biennially, this latest report identified that population sizes of wildlife decreased globally by 60% between 1970 and 2014, and highlighted:

"Exploding human consumption is the driving force behind the unprecedented planetary change we are witnessing, through increased demand for energy, land and water" (p.6).

An examination of the behaviour change agenda through the lens of the environmental social sciences, particularly within geography and sociology, has brought to the fore a recognition of the limitations of this psychologically-based approach to behaviour change (e.g. Shove, 2010; Shove et al., 2012; Crompton and Kasser, 2009; Whitehead et al., 2011; Barr et al., 2014) and how "…a pre-occupation with positivist methodologies…" inhibits the development of an adequate understanding of the key causes of behaviour change" (Spotswood and Marsh, 2016 p.294). This critical scholarship has led to the emergence of a range of alternative approaches to securing behaviour change for environmental sustainability (e.g. Shove, 2012; Crompton and Kasser, 2009; Crompton 2010; Dobson, 2010; Feinberg and Willer, 2013; Barr et al., 2011). The following section examines this scrutiny of the behaviour change agenda, exploring alternative conceptualisations of behaviour change, their academic foundations and their potentialities in terms of effecting behaviour change for sustainability.

2.6 Alternative conceptualisations of behaviour change

2.6.1 Utilising social theory

In critiquing the dominance of the individual, psychologically-based approach to behaviour change, social scientists have argued that focusing efforts on the individual as a means to deliver radical reductions in consumption is unlikely to succeed. The embedded nature of consumer practices, allied to their implicit relationship to the importance of continued economic growth within neo-liberal society, limits the extent to which the citizen-consumer can be an effective agent of change, and necessitates the need for more radical approaches (e.g. Peattie and Crane, 2005; Peattie and Peattie, 2009). Shove (2012) highlights the extent to which the psychological, individually-focused framework is a "…political and not just theoretical position in that it obscures the extent to which government sustain unsustainable economic institutions and ways of life…" (p. 1274). The psychologically-based approach, with its prescriptive approach to behaviour change provides no opportunity to question political and economic values behind policy goals of the behaviour change agenda.

Shove (2010) and Shove et al. (2012) identify that individual behaviours are set within a wider context of social practices, which frame and shape the individual actions that we routinely carry out in our everyday lives. These social practices "…are conceived as being routine-driven, everyday activities situated in time and space and shared by groups of people as part of their everyday life. Social practices form the historically shaped, concrete interaction points between, on the one hand actors, with their lifestyles and routines, and on the other hand, modes of provision with their infrastructures of rules and resources, including norms and values" (Verbeek and Mommas, 2008 p.634).

From this definition it is clear that institutional, infrastructural and cultural structures have a significant influence on individual action, and in this way "…provide a unique and powerful lens through which to examine how we collectively make decisions that undermine the common good" (Huddart Kennedy et al. 2015 p.4-5). By moving away from the individual actor, social practice theory enables consideration of the role and hold of routine everyday activities, and how these are related to the broader social contexts within which they are situated (Shove, 2003). Within this framework it is the complex network of institutions, routines and social norms within which we operate, or are 'locked into' (Jackson, 2005), that are primarily responsible for determining how we live, and thus the environmental degradation and unsustainable lifestyles that prevail (Huddart Kennedy et al., 2015). In comparison to the 'nudge' approach, in order to effect change, it is necessary to understand and seek to alter a very different and more complex network of elements. An exploration of these networks provides "…a unique and powerful lens through which to examine how we collectively make decisions that undermine the common good" (Huddart Kennedy et al., 2015 p.4-5). In so doing it exposes the limitation of the 'nudge-based' approach, and its underlying assumption that all individuals will respond in the same way to a particular stimulus, and instead "…celebrates and captures diversity and the dynamism of everyday life, documenting difference and heterogeneity" (Reid and Ellsworth-Krebs, 2018 p.14).

From this social practice perspective, the challenge of tackling environmental issues requires an understanding and analysis of how relevant practices, and their related infrastructures and institutions, evolve and change over time, and how these can be transformed to deliver more sustainable ways of living (Shove, 2010; Shove et al., 2012). Such an approach posits a major challenge to the existing neoliberal paradigm of governance and widely held social norms, over-arching government policy and economic framework (Shove, 2010; Shove et al., 2012). It calls for a radical approach and societal transformation to deliver more sustainable regimes of a wide range of elements – including technologies, routines, markets, expectations, and conventions – across all domains of daily life (Shove, 2010). From this standpoint the debate regarding sustainable lifestyles requires reframing from a focus on how individuals and communities need to act and live differently, to one that centres on why we live and consume in the ways we do, and by so doing, "socialising" the UK sustainable development policy and practice (Barr, 2014 p.233). With its focus on social practices as entities, rather than on the individual carrying out the practice (Spotswood and Marsh, 2016), this utilisation of social theory flies in the face of liberal paternalism. It is both collective and political, with people actively engaged in envisioning the type of society and economy that can be created in the future.

In terms of practical application to support the delivery of more sustainable lifestyles, Shove (2010) likens social theories of practice and behaviour change theory to "chalk and cheese" (p.1279), contrasting paradigms with an inevitable lack of commonality about them. The difference in where government and policy makers focus their attention will deliver either an individual and incremental change (but can only do so much within the confines of current social norms, accepted practices and governance) or a more radical societal transformation (Shove, 2010; Barr, 2014). From this standpoint it not a simple case of merging and incorporating social practice into the prevailing behaviour change paradigm (Shove, 2010). Such a stark contrast of approach leaves a large chasm between the dominant behaviour change paradigm and the untapped potential of social practice theory. Whilst social practice theory does not provide the framework for the exploration of behaviour change in this thesis, as will become evident in the empirical chapters (Chapters 5, 6 and 7) and discussion (Chapter

8), it provides an important conceptualisation of behaviour change on which to draw in the analysis and discussion of the empirical data, contributing valuable insight in relation to the approach to behaviour change at the zoo.

Other research within the environmental social sciences has identified alternative approaches to frame and explore behaviour change for sustainability. Unlike social practice theory, these approaches seek to engage with the individual, recognising the direct impact of people's everyday lives on the natural world (Crompton and Kasser, 2009; McKenzie Mohr, 2011) and the potential for people to help to shift the agenda from the individual to the political and societal (Crompton and Kasser, 2009). These alternative conceptualisations of behaviour change seek to: (i) explore a more holistic consideration of the potential of the 'more than rational' i.e. emotional aspect of decision-making; and (ii) recognise the spatial and temporal aspects as key contexts for individual decision-making.

The application of these approaches has the potential to deliver more radical, neurologically empowering and value-reorienting interventions (Jones et al., 2013a), where individuals can be recast as engaged citizens playing an active role in securing changes in societal approaches to environmental issues. In this way such alternative framings of behaviour change can be understood to occupy a space between the narrow confines of the nudge-based, psychological approach, and the more radical orientation of social practice theory. The following sections explore these aspects in more detail.

2.6.2 Engaging more deeply with the emotional aspects of decision making

As outlined in Chapter 1, this research study aims to counter the traditional psychologically-based approach to behaviour change by engaging more richly with the emotional aspects of decision making. This section discusses scholarship which has sought to embrace this emotional dimension, the value of which in the context of the zoo and this research, will be further explored in Chapter 3.

2.6.2.1 Human-identity campaigning

Within the environmental movement in the UK, the work of Crompton and Kasser (2009) on 'human-identity campaigning' and 'values and frames' (Crompton, 2010) has been particularly influential in providing an alternative framework to the dominant, 'nudge-based' approach. In line with other environmental social scientists, Crompton and Kasser (2009) call into question the efficacy of the environmental movement's efforts to address current environmental challenges through their focus on: (i) engaging in individual behaviour change; and (ii) engaging with government and business. Whilst they acknowledge that some success has been achieved in securing new environmental policies and regulations, these are identified as being "woefully inadequate" (ibid, p.3), given the scale of the environmental crisis at hand. Overall, this approach has not "…generated the political space and irresistible pressure necessary for adequate regulatory intervention, the fundamental reform of business practice, or the far-reaching changes in individual lifestyle choices that will be needed in order to meet today's environmental challenges" (ibid, p.4).

Given the limitations of the environmental movement's current approach, a third way, identity campaigning, is proposed. Once again drawing on psychology, this proposes that certain elements of the human psyche create a predisposition towards unsustainable behaviours. Therefore, by securing an understanding of the psychological make-up of individuals (both those working in government/business and of individuals acting in their everyday lives), the more environmentally positive aspects of human identity can be encouraged.

Three key aspects of human identity are identified as central to this strategy: (i) values and life goals; (ii) in-groups and out-groups; and (iii) coping with fear and threats. In short, in order for the successful delivery of human-identity campaigning it is necessary to: (i) shift values and goals away from extrinsic, self-enhancing, materialistic ones towards intrinsic, benevolent, community-orientated ones; (ii) reduce prejudice towards non-human nature; and (iii) promote healthier ways of coping with the fear and threats presented by the environmental crisis. Crompton and Kasser (2009) identify a range of strategies

to help mitigate the environmentally negative aspects of human identity, and describe how their approach can be incorporated into new approaches to environmental campaigning – "…to infuse environmental debate with a different set of values…" (p.34).

Whilst there is a similarity with the approach of Paul Stern discussed in Section 2.4, in terms of the incorporation of intrinsic and extrinsic values, in this case these values are not linked to a particular scale such as the New Environmental Paradigm. However as for the Value-Belief-Norm model, the central focus of this approach remains with the individual, although it does highlight the need for more radical change within existing political and economic structures in order to secure environmental sustainability. Engaging with individuals to reconfigure their values, attitudes and thus identity in relation to the natural world can help to secure more environmentally aware and active individuals (Crompton and Kasser, 2009), who can be conceived of as active citizens, rather than passive, nudged citizen-consumers. These individuals can in turn support the existing two-pronged strategy through: (i) making more ambitious demands for changes in government and business policy and practice; and (ii) undertaking pro-environmental choices in their everyday lives, without recourse to repeated nudging (Crompton and Kasser, 2009).

2.6.2.2 Values and frames

Drawing on the work of human-identity campaigning, 'Common Cause: The Case for Working with our Cultural Values' (Crompton, 2010) was developed through a collaboration of non-governmental organisations, to produce one of the most influential pro-environmental change policy alternatives (Jones et al., 2013a). This policy and approach combine research in social psychology and sociology, bringing together the role of values, as explored by Crompton and Kasser (2009) in motivating concern, alongside research regarding the role of 'frames' as mechanisms which can activate and strengthen helpful values. The latter draws on the work of cognitive linguist George Lakoff, who describes frames as: "…the mental structures that allow human beings to understand reality – and sometimes to create what we take to be reality. [T]hey structure

our ideas and concepts, they shape how we reason, and they even impact on how we perceive and how we act" (Lakoff, cited in Crompton, 2010 p.11).

There is a distinction between 'shallow' and 'deep' framing (Crompton, 2010; Jones et al., 2013a). Lakoff (cited in Crompton, 2010) terms the current approach to pro-environmental behaviours as being dominated by 'shallow' framing, where behaviour change policy, via a 'nudge', makes use of an automatic human response system to deliver desired action e.g. adjusting your energy use in response to a smart meter reading (Jones et al., 2013a). Whilst shallow frames may be acceptable in the short-term, this does not leave an individual more amenable to long-term shifts towards undertaking more pro-environmental behaviours (ibid). In contrast 'deep' frames are cognitive structures held within an individual's long-term memory that are associated with particular values. Appealing to an individual's deep frames can be extremely powerful in promoting particular value-based agendas (Crompton, 2010) - examples include "self-interest' versus common-interest frame" (p.13-14) and "elite governance versus participative democracy" frame (p.14-15). Whilst these deep frames are relatively constant, it is possible to alter them (Crompton, 2010).

Using Lakoff's work, Crompton (2010) identifies the need for policies that target our deeper cognitive frames, which relate to our socio-cultural identity and values. In line with the work of Crompton and Kasser (2009), Crompton (2010) identifies two broad forms of cultural values: (i) intrinsic, which place the needs of the wider community and non-human world above more narrow interests of the individual; and (ii) extrinsic, which are more egotistical and emphasise self-interest and personal gain. Therefore, behaviour change policies need to address and try to orientate our values in more empathetic and egalitarian directions (p.156). In light of this, criticism is laid at the Government's segmentation-based approach to pro-environmental behaviours, as "…it is short-sighted to conduct audience segmentation exercises and then tailor communications and campaigns to appeal to the values that dominate within a particular segment irrespective of whether or not these values are socially and environmentally helpful" (Crompton, 2010). For example, encouraging people to

undertake energy saving measures purely on the basis of financial gain. However, there is recognition of the role for segmentation in enabling a better understanding of differing audiences, and thus how best to engage them in debate about values and frames and how to work to strengthen helpful values.

There is some criticism of this approach in that it says little about how to access and transform cultural values (Jones et al., 2013a; Whitehead et al., 2013). Crompton and Kasser (2009) and Crompton (2010) both identify the importance of activating empathy for nonhuman nature, and time spent in the natural world as key mechanisms in helping to shift or reinforce intrinsic values, advocating in particular experiences in a 'wilderness' type setting, away from large centres of population. In addition, the Common Cause Foundation, The Common Cause Foundation, based in Woking, Surrey, in the UK, has worked with environmental organisations to apply its framework to explore the efficacy of these organisations' efforts to engage and encourage action by the general public in support of nature conservation. The output, 'Common Cause for Nature' (Blackmore et al. 2013), provides recommendations on how environmental organisations can deliver their communications, provide activities for their members and the wider public, and advocate for policy changes, using language and approaches which encourage and support intrinsic values of care, compassion and environmental concern. More recently the 'Framing Nature Toolkit' (Underhill, 2018), a follow-up project to Common Cause for Nature, led by the Public Interest Research Centre (PIRC), has built and expanded on the Common Cause report, to focus on practical advice and implementation for environmental organisations. Clearly at this stage it is too early to evaluate the success of this toolkit.

The need to explore the 'more than rational' element of decision-making in relation to behaviour change for sustainability has also been explored by other environmental social scientists, although as will be seen in the following section, it is not necessarily a case of working to shift and increase particular values or standpoints – instead it can be a case of understanding and meeting people within their current value set.

2.6.2.3 Environmental citizenship

Dobson (2010) notes the lack of attention paid to civil society in current UK policies to deliver behaviour change and suggests that the concept of environmental citizenship has much to offer in supporting behaviour change policies in relation to environmental sustainability. At the heart of environmental citizenship are social rather than environmental values, and within this values-based approach the key value is justice between humans.

This concept is based on notions of justice and fairness and refers to "…pro-environmental behaviour, in public and in private, driven by a belief in fairness of the distribution of environmental goods, in participation, and in the co-creation of sustainability policy" (ibid, p.6). Individuals are viewed as citizens rather than consumers in this model with associated rights and responsibilities, specifically: "…a right to a liveable amount of ecological space…" and "…responsibility of those who occupy too much of this space to reduce their 'ecological footprint' through private and public action" (ibid, p.6).

The environmental citizenship approach seeks to work with the individual's existing morals and values, by drawing out values which already exist within the individual, rather than trying to alter or develop new values for that person (Dobson, 2010). In addition, it also demands a reconfiguring of the relationship between the state and the individual/local community, with a much more engaged, proactive, supportive and responsive role for the state. Through this reconfiguration the state-citizen relationship shifts to one of co-creation, in comparison to top down liberal paternalism. This links strongly to the challenge of social practice theory, and the need for a more radical transformation of society, which engages the individual in a reconfiguration of modern lifestyles, through a more participatory and co-creative approach.

Alongside the encouragement and support of individual engagement in society, Dobson (2010) also highlights the importance of working through agents of social change, such as the education system. Much of the understanding important to the concept can be developed in schools, and through organisations which can help to reinforce, enhance and develop such

messages in their work: "…many of the understandings that are important to environmental citizens could be developed in schools or non-formal educational settings like zoos and botanical gardens" (ibid, p.10).

2.6.2.4 Moral Foundations Theory

Situated within social psychology, moral foundations theory proposes that an individual's moral values have a very direct impact on their attitudes. A moral gap arises where an individual does not have a moral connection to an issue, and hence there is lack of motivation to act. However, when individuals are morally engaged, they are more likely to act, regardless of any rational supporting arguments or economic incentives (Adger et al., 2017).

Feinberg and Willer (2013) describe the work of moral foundations researchers, who have identified five basic spheres of human morality relating to concerns in relation to: (i) care and protection of others; (ii) fair treatment of others and upholding justice; (iii) group membership and loyalty; (iv) hierarchy, obedience and duty; and (v) upholding purity and sacredness. Adger et al. (2017) reconfigure these spheres into two over-arching categories which they term 'vulnerability-based' and 'systems-based' moral arguments. The former relate to the concerns of care and justice, and the latter to concerns about respect for authority, and notions of sanctity and purity. Both Feinberg and Willer (2013) and Adger et al. (2017) explore this moral dimension matter in relation to the environmental agenda.

Feinberg and Willer (2013) studied the current discourse around the climate change agenda in North America, as a means to explore the polarisation of Americans' attitudes to environmental issues. Typically, those with liberal views accept and respond to the climate change agenda, whereas conservatives do not. A content analysis of newspapers and public-service announcements in relation to climate change was found to be mainly focused on moral concerns related to harm and care (framing that relates more to the moral concerns of liberals than conservatives). However, the study found that reinterpreting the moral framing of climate change in terms of purity largely removed the difference between liberals' and conservatives' environmental attitudes.

Thus, framing messages in particular ways to appeal to audiences with differing moral foundations can play a very significant part in reinforcing or shifting individual attitudes and, potentially behaviours. This points to the value and potential of moral suasion i.e. an appeal to morality in order to influence or change behaviour as a key tool in efforts to secure pro-environmental behaviour, and climate change adaptation. As Fineberg and Willer (2013) state: "…moral reframing can successfully sway environmental attitudes…" (p.61). Further research is suggested to explore the particular efficacy of this reframing (ibid).

Adger et al. (2017) conducted an analysis of data from focus groups and open discussions with the general public on climate change risks and adaptation, commissioned by the UK Government. Their analysis revealed that focus group participants consistently framed their discourse around adaptation to climate change in moral terms, including both 'vulnerability-based' and 'systems-based' moral frames. This again suggests the potential value of understanding and relating to an individual's moral foundations.

In contrast to the majority of the behaviour change related literature, both moral foundations and environmental citizenship are centred on meeting people where they are at in terms of their moral foundation, rather than trying to shift values, attitudes or other aspects in order to secure pro-environmental attitudes and behaviours.

2.6.3 Alternative conceptualisations and the epistemology of behaviour change

The alternative conceptualisations of behaviour change described above raise an epistemological issue regarding what is seen to constitute evidence of change by policy makers. Within the social marketing paradigm, the evidence sought is quantitative in nature, focused on the numbers of individuals changing/taking up a prescribed, pre-determined behaviour as a result of an intervention/campaign. This is undoubtedly an attractive framework for government, in line with the 'evidence-based policy' focus of UK Government

(Jackson, 2005). Whitehead et al. (2011) suggest that the potential of the 'more-than-rational' aspects of decision-making is being underplayed due to a negative characterisation of emotions as being an inferior basis for decision-making. However, this is a very narrow and reductionist approach, which does not allow scope for the consideration or capture of other activities or shifts in attitudes/values that may occur, but which do not manifest themselves in the shape of a positive change in relation to a pre-determined parameter. A shift or recognition of particular values may not be as straightforward to articulate or capture in comparison with the number of people undertaking a new behaviour, and thus may be less appealing to the evidence-based policy of current government. As highlighted by Dobson (2010) in relation to environmental citizenship, and Crompton (2010) in relation to values and frames, these approaches do not provide a quick win, both requiring time and commitment to secure. However, they have the potentiality to develop and support active citizenry, and the ability to deliver more enduring changes in behaviours, without repeated recourse to 'nudging'.

2.6.4 Sites of practice and behaviour change

Whitehead et al. (2011) argue for a more progressive behaviour change agenda in the UK that embraces a more holistic consideration of the potential of the 'more than rational' i.e. emotional dimension of human decision-making coupled with the value of geographical enquiry within the policy making process. The former, as in the case of the approaches outlined above in Section 2.4.4, presents a much richer application of the behavioural sciences than the current focus on 'nudge' and social marketing approaches. The latter identifies the importance of place and space in how people act and the choices they make. Within geography, research in this sphere enables an appreciation of "…the importance of temporally, culturally, spatially and personally contingent reasons for action (i.e. not individual reasons)" (Reid and Ellsworth-Krebs, 2018 p.17). The value of such geographical enquiry has been illustrated in relation to the importance of: (i) sites of practice in influencing individual attitudes and behaviours; and (ii) the influence of place-based design in influencing behaviours. Each of these will be considered in turn in the following sections.

2.6.4.1 Sites of practice and uptake of pro-environmental behaviours

As described in Section 2.3.1, the context for the suite of prescribed behaviours advocated by DEFRA (2008; 2011) is primarily in and around the household. It does not consider other sites of practice, such as work or leisure settings (Barr et al., 2011), where individuals are present on a regular or more periodic basis. In addition, the alternative conceptualisations of behaviour change considered in Section 2.4.4, which engage more deeply with the emotional aspects of decision-making, also do not attend to the potential influence of contextual factors. However, the importance of the geographies of space and time in influencing attitudes and behaviours has been well illustrated (Barr et al., 2010; Whitmarsh and O'Neill, 2010; Barr et al., 2011). Investigation of consumer behaviours in contrasting sites of practice (in the home and away from the home on holiday), has highlighted the impacts of these different consumption settings on pro-environmental behaviours, and the ways in which these are related to underlying social practices within these settings (Barr et al., 2010; Barr et al., 2011). Pro-environmental behaviours which individuals were happy to undertake in the home as part of everyday living were not carried through to other contexts, in this case leisure and tourism (ibid). People's attitudes, values, behaviours and routines can be very different away from the home environment, which can make it difficult for the pro-environmental behaviours of everyday life to 'spill over' into other sites of consumption (ibid). These findings are clearly in sharp contrast to the psychological models of behaviour, which do not conceive of an individual moving between and inhabiting different contexts, with their associated meanings, emotions and social norms.

2.6.4.2 Place-based design and behaviour change

Drawing on an ethnographic and interview-based research study of a DIY Streets initiative in Oxford, Jones et al. (2014) explored the emotional geography of a residential street, and sought to understand the 'more than rational' aspects of dimensions of decision-making at particular points in time and space (Whitehead et al., 2011).

The central tenet of DIY Streets was a design approach to enhance the place-based feel of a neighbourhood street through the provision of psychological

prompts to indicate to drivers the nature of the place as somewhere where people live, thus fostering more intuitive or 'more than rational' response from drivers (DfT and DCLG, 2007; Sustrans, 2010). Retrofitting of a residential street was undertaken to create 'mental speed bumps', including painted roads and planters masquerading as bike racks, in contrast to traditional traffic management techniques (Sustrans, 2010; Jones et al., 2013a). This approach afforded an opportunity for people to "…actively deliberate on the social norms they would wish to build into their re-planned environments" (Jones et al., 2013a p.95). Thus, rather than being subconsciously nudged in a particular direction, they become the choice architects for their local space (ibid).

The DIY Streets project served to highlight the potential of, and current institutional barriers to, embracing the 'more than rational' dimension of decision making in relation to the design of shared space in urban environments. Key points emerging from the research were conflicts between existing institutional frameworks and infrastructures, and the potential to encourage people to behave more intuitively in these neighbourhood spaces (Jones et al., 2013a). For example, the local police did not sanction the ambition of the residents in relation to the implementation of mental speed bumps. From their perspective safety issues were best addressed through the use of existing infrastructures such as clear signs and raised boundaries to delineate different user spaces (ibid). However, as Jones et al. (2013a) note, this completely missed the point of the initiative, namely to wake up drivers through a range of mental clues to recognise the neighbourhoods as shared spaces, and adapt their behaviour accordingly.

2.7 Concluding summary

This chapter has highlighted the complexity and difficultly in responding to the multiplicity of environmental challenges posed by human pressures on the natural environment. The ways in which individuals behave are not necessarily easy to understand or rationalise. An individual's choice to behave in a certain way can be the result of a complex interplay of factors including knowledge, previous experience, emotions, cultural norms and expectations, and the context within which the behaviour is practised.

Set within an over-arching framework of neoliberal governance, UK government has sought to address these environmental issues through the adoption of a particular, psychologically-based approach to behaviour change, where the responsibility for effecting change is placed firmly in the hands of the individual citizen-consumer. However, to date, progress has been limited, and the environmental challenge persists.

In an effort to understand and redress the lack of success in meeting the needs of sustainable development, environmental social scientists have sought to challenge the dominant psychologically-based approach. Social practice theory rejects the agency of the individual in favour of a more radical approach which addresses the wider constructs and governance which shape our everyday lives. However other critiques and approaches continue to work at the scale of the individual. Whilst the importance of the 'more than rational' or emotional dimension lies at the heart of the behaviour change for sustainability agenda, it has taken the form of a very particular and narrow approach. The alternative conceptualisations based in the concepts of values, frames and morals provide a much richer engagement with the emotional dimension, with the intention of supporting and orientating more environmentally aware and active citizens. Alongside this, the need to understand the temporal and spatial aspects of decision-making provides a contextual background to individual behaviour change, which as yet is not recognised in government policy or campaigns.

Clearly there is significant potential for environmental scientists to add more intellectual rigour, energy and ideas into this very challenging arena. Given the pressing nature of the environmental challenges, and the lack of progress through the application of a 'nudge-based' approach to addressing these challenges, it would seem sensible, and arguably imperative, that alternative approaches are more widely understood and utilised in shaping government policy and strategy. However, engaging more fully with these alternative conceptualisations would represent a significant departure from the current psychologically-based agenda, and effect a challenge to the neoliberal status quo.

Moving next to the place-based context of the zoo, and drawing on the material presented in this chapter, the following chapter will explore how, as specific places of human-animal encounter, zoos have adopted the dominant psychologically-based approach to behaviour change. It also identifies the potentiality of the zoo to embrace the ‘more than rational’ or emotion dimension of decision making as an alternative approach to framing behaviour change with its visiting publics.

Chapter 3: Human-animal relationships

3.1 Introduction

This is the second of the two literature review chapters, and provides an exploration of human-animal relationships, firstly within the context of the zoo as a particular site of human-animal encounter, and then more broadly within geographical scholarship. It also describes how geographers have sought to engage in explorations of the emotional/affective dimensions of human experience. In so doing it connects with and extends the exploration of the emotional dimension of behaviour change discussed in Chapter 2, and contributes to the research aim and objectives through examining the potentiality of a more emotionally-centred approach to behaviour change in the context of human-animal encounters within, and beyond the boundary of, the zoo.

The chapter is foregrounded with an overview of the changing role of zoos in society, highlighting the paradigm shifts from first menageries, and then zoological gardens, to their present-day manifestation as centres for conservation. Critiques of this modern-day role of the zoo are explored from a variety of standpoints. The development of visitor education as a key role within this reimagining is also considered, and as a central aspect of this, the emergence of a psychologically-based approach to behaviour change. Beyond this framing of behaviour change, other studies of human-animal encounters both at the zoo and within the wider natural world are considered, which engage more richly with the emotional dimension of these encounters.

Moving beyond the context of the zoo, the chapter then explores the emergence and development of the sub-field of animal geographies within geographical scholarship. Charting its development from its early roots in zoogeography, it describes how today, animal geographies pursue a more inclusive approach to human-animal relations, seeking to challenge the ontological separation of human/nature (Harraway, 1992) through enquiry in a wide variety of spaces and places of human-animal encounter. The chapter then returns to the zoo, to provide an account of geographical enquiry in this context in relation to three

main themes: (i) cultural representations of human-animal relations; (ii) animal exhibition; and (iii) commodification of charismatic animals.

Finally, the chapter broadens out again beyond the realm of the zoo, to consider how geographical scholarship has sought to conceptualise and research the emotional/affective dimensions of lived experience. In so doing it highlights the emergence of distinctions between notions of affect and emotion in cultural geography, providing an overview of distinctions and definitions.

3.2 The evolution and role of zoos in society

3.2.1 Paradigm shift from menagerie to conservation centre

Zoos are long established cultural institutions and sites of human-animal encounter, and today most are situated within the urban fabric of the industrialised world. They have a long history, which can be traced back to menageries, private collections of caged animals, and cabinets of curiosities (Davies, 2000), where collections of animals captured from the wild were displayed as symbols of human victory and dominance, and made to perform for the pleasure of humans (Mullan and Marvin, 1999). The development of the menagerie was closely bound up with European exploration and colonisation. Kisling (2000) describes the emergence of the 'colonial menagerie', where animals from newly colonised, geographically remote areas, became commonplace cargo at European and colonial ports, en route to a growing number of these very particular places of animal captivity and confinement, and of human-animal engagement. These exotic animals were of great interest for popular and scientific reasons, in addition to their commercial value (ibid). By the eighteenth and nineteenth centuries, menageries were well established throughout the world (ibid), perhaps exemplified by the palace at Versailles, created by Louis XIV (Baraty and Hadouin-Fugier, 2002).

Whilst retaining the scientific logic of the menagerie (Mullan and Marvin, 1999), in response to social change and the waning influence of the aristocracy during the 19th century, these menageries were replaced by zoological gardens, which opened up access to the wider public (Baratay and Hadouin-Fugier, 2002). The

emergence of zoos in Europe and North America is described by Philo and Wilbert (2000) as "…a crucial moment in the history of human-animal relations…" (p.13), bringing 'wild' animals into human-designed exhibition spaces, and through this providing "…a highly tangible expression of the dual conceptual and material placements of animals…"(p.13).

During the industrial revolution both in North America (Braverman, 2013) and Europe, zoos provided places for recreation and respite for city workers, with Europe's zoological gardens helping to "…regenerate urban spaces by introducing a recreated, domesticated and idealised nature…" (Baratay and Hadouin-Fugier, 2002 p.101).

The emergence of the civil rights movement in the 1960s within a more radical political climate acted as a major catalyst for the expansion and development of the animal rights movement within society (DeGrazia, 2002). At the same time concern about the destruction and pollution of the natural environment was growing, exemplified by the seminal work Silent Spring (Carson, 1962), which documented the negative impact on the environment, and particularly on bird species, through the indiscriminate use of pesticides. This combination of factors served to re-ignite and increase concern for the individual animals whose lives were being adversely affected and put at risk by a range of human practices (Armstrong and Botzler, 2008). This increasing social concern regarding the welfare of animals brought into question the whole enterprise of keeping animals in captivity. Animal rights advocates began questioning the right of zoos and aquariums to hold animals in captivity – both its pertinence and humaneness (Lindburg, 2008).

In response to this, and coupled with the emergence of pressing environmental challenges, zoos re-positioned themselves as conservation centres, effecting a further paradigm shift from their previous incarnations as first menageries and then living museums/zoological parks (Rabb, 1994; Rabb and Saunders, 2005; Braverman, 2013; Keulartz, 2015). As centres of conservation, zoos seek to deliver an "integrated approach" (Keulartz, 2015 p.340), which combines the delivery of four aims, relating to: entertainment; conservation; research; and

education. Figure 3.1 describes these changes in function and approach of zoos associated with these two paradigm shifts.

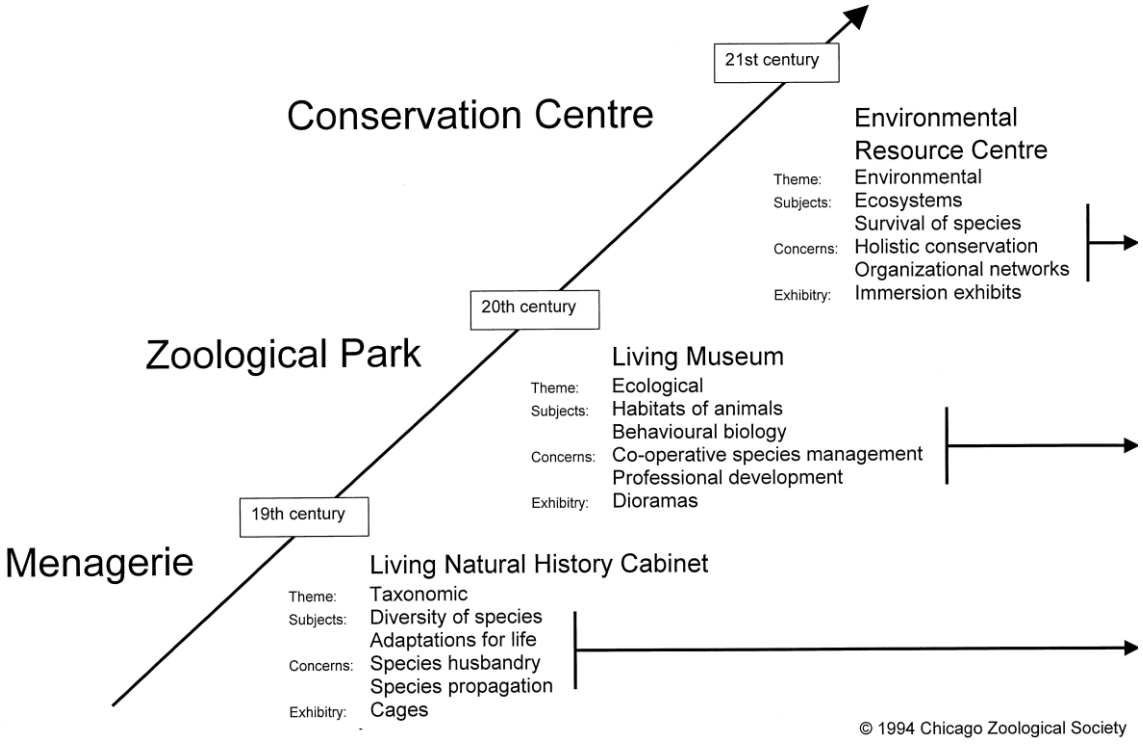


Figure 3.1 The evolution of zoos and aquariums (source: Rabb, 1994)

Despite these paradigm shifts, zoos have continued to attract criticism across a broad spectrum of academic scholarship, animal rights organisations, and the popular media. Much of this has centred on the ethics and morality of keeping sentient animals in confinement and captivity (e.g. Regan, 1995; Mullan and Marvin, 1999; Lindburg, 2008). Specifically, within academic spheres, key aspects of this criticism centre on the zoo as a place of spectacle for entertainment, which continues to reinforce the mastery and dominance of humans over animals (Berger, 1980; Anderson, 1995; Acampora, 1998; Acampora, 2008; Mullan and Marvin, 1999; Jamieson, 1995; Jamieson, 2008). Whilst the concept of the spectacle in relation to the zoo, and therefore within this thesis, is centred on the facet of the spectacle as entertainment, it should be noted that the origin of this concept has broader theoretical underpinnings. Debord (1970) identifies the emergence of the society of the spectacle during the late 1920s, in which what is consumed by society embodies a mixture of distraction, depoliticisation and reinforcement, which serves to reproduce the

mode of society and economy aligned with the capitalist project – what today we understand as neoliberalism.

In considering the paradigm shift of the zoo to a centre for conservation, Acampora (2008) concurs with Berger (1980) in identifying the inherent contradictions within this role. The spectacle of the zoo removes the fundamental "natural" (p.501) of the wild animal i.e. a capacity to engage with or absent itself from the sight or company of others. In this way the zoo serves to reinforce "…a relational dynamic of mastery" (ibid, p.501). Animals at the zoo are exhibited to suit our needs and meet the visitors' expectations to see and interact with animals. In her "cultural critique" (p.275) of the history and development of Adelaide Zoo, cultural geographer Kay Anderson (1995) follows a similar theme, exploring the zoo as a particular culturally constructed depiction of nature, and as a manifestation of the human/nonhuman animal and culture/nature divide.

Such critique of the zoo inevitably challenges its' capability to deliver its educational aims. Both Jamieson (1995, 2008) and Acampora (2008) point to a lack of evidence of the educational impact of educational programmes at the zoo, and the necessity of zoos in helping to deliver educational work in relation to wildlife and wildlife conservation. Mullan and Marvin (1999) describe encounters with animals at the zoo as failing to shift the interest and concern of the visiting public beyond that of the particular animal in the particular exhibit: "Most (visitors) do not seek to understand the animal or to think beyond it" (p.128).

In a more recent exploration of development of the zoo as a conservation centre, Keulartz (2015) remains uncertain as to the capacity of the zoo to deliver the diverse aims of the conservation centre, and suggest that zoos are at another critical point in their history: "Today, the zoo is standing at a crossroads – and has to decide if it will fully commit to the new paradigm and develop into a conservation centre or if it will degenerate (further) into a venue for entertainment…" (p.349). This resonates with other critique from within geographical scholarship, which centres on the commodification of wildlife

experiences at the zoo (Whatmore and Thorne, 2000; Lorimer, 2015), which will be explored further in Section 3.3.3.

In addition, despite its reimagining as a centre for conservation, the colonial past of the zoo is still in evidence. In its wildlife conservation role, Braverman (2015) notes that "…the zoo's survival has come to rely on the continued identity of the animals as wild, exotic and other" (p.63). However, today animals in the wild do not live in this romanticised perception of nature, untouched by humans (Braverman, 2015). The simple bifurcation of captive versus wild, manifest in zoo terminology as ex situ and in situ, is now redundant and belies "…a bewildering array of combinations of reliance on human action [or inaction] for conservation."(ibid, p.31), as the impact of human actions reaches across the globe and across ecosystems.

Similarly, the global constructions of wildlife conservation organisations in relation to endangered species – at its very heart what animals are worth saving – is manifest in the mission of the zoo. As Hovorka (2017) identifies, "…a focus on wild animal conservation exposes colonially-instigated and racially-charged ideas about which animals 'matter' and need protection…" (p.383). Through the species on display, and the information provided to visitors about conservation breeding programmes, the zoo risks this perpetuation of colonial constructs of nature.

3.2.2 The development of the educational role of the zoo

Central to embracing the role of the conservation centre has been the development and articulation of the zoo as place of environmental education, both in terms of increasing awareness and knowledge amongst their visitors, and in encouraging and supporting those visitors to adopt pro-environmental behaviours. The presence of a range of exotic, and often endangered species within the zoo, is the central tenet of this educational role. These individual animals are the main mechanism for zoos to engage its visitors in issues of wildlife conservation. The zoo utilises these individuals as 'ambassadors': proxies for the conspecifics (i.e. animals of the same species) in the wild, and

for the habitats and ecosystems within which these conspecifics reside (Bertram, 2004; Rabb and Saunders, 2005).

On the global stage, recognition and endorsement of the potential for wildlife attractions, specifically zoos, to play an important role in addressing the planet's pressing environmental issues, came at the 1992 Earth Summit in Rio. This identified zoos as an education provider capable of delivering the "Think Global, Act Local" framework that emerged from the summit, providing a call to action for individual citizens to take responsibility for making changes to their lifestyles to help conserve the environment (Esson and Moss, 2013). A further commitment by the zoo community to delivering this educational role within society was demonstrated in 2011 by the World Association of Zoos and Aquariums (WAZA), the governing body for zoos and aquariums, with currently more than 1,000 affiliates worldwide (Esson and Moss, 2013). On behalf of its membership, WAZA pledged to support the Aichi Biodiversity Target 1 of the UN decade on Biodiversity, which had the overall aim of halting and eventually reversing the loss of the Earth's biodiversity (Convention on Biological Diversity, 2011). Target 1 states that "by 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably" (ibid, p.1).

This emerging and still evolving educational role for the zoo can be traced through a review of the three successive strategic documents produced by the zoo/zoo and aquarium community since the early 1990s (IUDZG/CBSG, 1993; WAZA, 2005; Barongi et al., 2015). These illustrate the way in which the behaviour change agenda has emerged and become central to the educational aims of these wildlife attractions. The inaugural strategy (IUDZG/CBSG, 1993) interpreted the educational role of the zoo as one of increasing visitor knowledge and awareness of biodiversity and the necessity for conservation. The 2005 strategy (WAZA, 2005) developed this educational role to include influencing visitors' attitudes and behaviours, utilising the terminology of 'conservation advocacy' and 'behaviour change' for the first time. There was no specific guidance in relation to the types of behaviour that the zoo sought to influence, or the way in which such changes could be secured. However, the document indicates that the most effective way for the zoo to encourage

behaviour change is through becoming environmentally sustainable in all its activities, with a strong focus on resource consumption as the guiding principle. There is also an implicit assumption of an information-based approach to behaviour change, whereby increasing the knowledge and awareness of visitors will deliver changes in behaviour, which are of benefit to wildlife conservation.

The current strategy (Barongi et al., 2015) provides a far stronger statement of intent regarding the duty and ability of member organisations to increase environmental awareness and secure pro-environmental behaviours from their visitors. This is reflected in the title of the document's section on education: "Engagement – Influencing Behaviour Change for Conservation" (p.44) and in its vision for this sphere of work: "Zoos and aquariums are trusted voices for conservation, and are able to engage and empower visitors, communities and staff *measurably* to save wildlife" (p.44, author emphasis). Within everything that is delivered in support of educational work, the importance of monitoring and evaluation to assess impact is stressed. This focus on impact measurement is to be expected in terms of good organisational management practice. In addition, in light of the ongoing questioning and criticism of the role of the zoo discussed in Section 3.2.1, it is clearly very important for the zoo to be able to provide external validation of its role as a conservation centre.

The 2015 strategy is also indicative of the increasing awareness within the zoo and aquarium community of the complexity and challenge of delivering behaviour change within its visitor cohorts. Assumptions that knowledge acquisition leads to behaviour change have been superseded, with the acknowledgement of the importance of using the social sciences, including conservation and environmental psychology to understand and deliver pro-environmental behaviours. Within this, the strategy advocates a psychologically-framed approach to behaviour change, which can be seen to be reflective of the dominance of social marketing within the neoliberal governance framework discussed in Chapter 2. Specifically, the strategy advocates for the use of community-based social marketing (MacKenzie-Mohr, 2011), a particular form of social marketing, which is described in the following section.

3.2.2.1 The psychologically-based approach to behaviour change at the zoo

Community-based social marketing (CBSM) provides a context specific sub-set of the social marketing approach described in Chapter 2. It aims to promote the uptake of specific behaviours within a particular community or setting (Jackson, 2005; Mackenzie-Mohr, 2011) and has been utilised by zoos as the predominant framework to inform their approach to behaviour change. Examples of CBSM campaigns to prompt specific behavioural responses include:

- **'Knot Your Net'**: Bristol Zoo. A year long campaign in 2016 to highlight the negative impact of discarded netting on UK wildlife, and to encourage visitors to tie a knot in any netting before throwing it away (Bristol Zoo, 2016);
- **'Don't Palm Us Off'**: Zoos Victoria, Australia. This aimed to change purchasing decisions to avoid products containing palm oil, and to advocated for mandatory labelling of palm oil in food products, due to the impacts of the palm oil industry on rainforest ecosystems (Lowry and Gray, 2009; Pearson et al., 2014; Smith, 2014);
- **'They're Calling on You'**: Zoos Victoria, Australia. This aimed to encourage the recycling of mobile phones, to help reduce the demand for coltan and other minerals, excavated from forest habitats in Central Africa (Lowry and Gray, 2009);
- **'Cats in at Night'**: Wellington Zoo, New Zealand. This aimed to ensure that owners of domestic cats kept these pets in at night to help reduce predation of native wildlife (MacDonald, 2015).

Chapter 2 identified how the social marketing approach represents a very particular and narrow interpretation of the 'more than rational' or emotional aspects of decision making. Zoo-based social marketing campaigns do engage with this emotional dimension in a deeper way, making use of "ambassador species" as a means to "connect" people with a particular wildlife conservation issue (Lowry and Gray, 2009 p.7). For example, Zoos Victoria have used the orang-utan for this purpose in relation to 'Don't Palm Us Off' and the Western

Lowland gorilla for ‘They’re Calling on You’. Figure 3.2 provides examples of the imagery utilised in these two campaigns. Whilst “connect” is understood to be the arousal of emotional responses from visitors (ibid), the nature of these emotions is not clearly defined or explained.

Figure 3.2 Examples of imagery used by Zoos Victoria to promote ‘Don’t Palm Us Off’ and ‘They’re Calling on You’ campaigns (credit: Zoos Victoria)

The evaluation associated with CBSM, and thus the zoo-based behaviour change campaigns utilising this framework, centres on a quantitative measurement of the uptake of the desired behaviour(s) as a result of the visit to the zoo (Pearson et al., 2014; MacDonald, 2015). Table 3.1 highlights this approach to evaluation in relation to the ‘Don’t Palm Us Off’ and ‘They’re Calling on You’ campaigns.

Ambassador Animal	Target Behaviour Action	Visitor Response
Orang-utan	Sign and post a petition card lobbying Food Standards Australia to mandate that all food products containing palm oil are clearly labelled	78%
Gorilla	Recycle mobile phone when it is replaced On site – Take a mobile phone recycling bag	76% of those that took a bag, 32% have gone on to donate an old phone

Table 3.1 Evaluating the impact of Zoos Victoria's behaviour change campaigns (source: adapted from Lowry and Gray, 2009)

In addition, the evaluation of these behaviour change campaigns is primarily centred on behaviours undertaken at the zoo. A small body of work in tourism studies has sought to explore how experiences of wildlife in a range of settings, including zoos, can influence pro-environmental behaviours beyond the time and place of the experience (Ballantyne and Packer, 2011). However, Smith et al. (2014) identify the need for more measurement of off-site success to help wildlife attractions to better understand the influence of their activities on visitors' behaviours, including longitudinal studies to explore how this influence may stay with individuals over time.

Whilst the outputs from behaviour change campaigns recorded in terms of pro-environmental actions could also be interpreted as a manifestation of care and concern for wildlife, the focus on the CBSM methodology and epistemology does not enable the influence of the zoo visit in relation to these emotional responses to be captured. In addition, by prescribing the type of behavioural outputs that they wish to secure, the zoo limits its engagement with a broader understanding of the ways in which the zoo visit may influence visitors' behaviours. However, this focus on delivering measurable outputs undoubtedly provides an attractive framework for zoos. Section 3.2.2 identified the importance placed on quantifiable indicators from the educational work of the zoo, which are undoubtedly important in helping to build the evidence base for zoos as modern-day conservation centres. Within a research community dominated by natural scientists, with a dearth of social science expertise, it is likely that quantitatively-based measures provide a good 'fit' for the zoo. In addition, Doug McKenzie-Mohr, a leading expert in CBSM works closely with zoos, providing workshops and training in this approach to behaviour change.

As yet there has been no challenge to the utilisation of this psychologically-based approach. Conceptually this lack of challenge has precluded a broader questioning of how behaviour change could be approached at the zoo – what is

possible, desirable and measurable both at and beyond the boundaries of the zoo and zoo visit.

3.2.2.2 Priorities for behaviour change at the Whitely Wildlife Conservation Trust (WWCT)

In the context of this research, the WWCT has not yet developed social marketing campaigns along the lines of those described above. However, within its approach to education and engagement, the Trust's 2013-2020 Strategic Plan includes a specific focus on behaviour change with its visitors: "Conservation advocacy – shaping behaviour change for the benefit of biodiversity" (WWCT, 2013). Set within this the Trust has four conservation advocacy priorities, each with a desired goal of securing specific behaviours from visitors to its three wildlife attractions (Paignton Zoo; Living Coasts; and Newquay Zoo). These four priorities are as follows:

(i) ***Palm Oil*****:** Visitors choosing products which contain sustainably sourced palm oil:

(ii) ***Marine Plastics***: Visitors ensuring that they re-use and recycle plastic bags (beyond the period of the fieldwork for this research this was extended to include a focus on single-use plastic water bottles);

(iii) ***Wildlife Trade***: Visitors ensuring that they do not purchase any items made from illegally traded wildlife (of particular relevance to visitors travelling to certain countries); and

(iv) ***Environmental management***: Visitors reducing, re-using and recycling resources as part of their everyday lives.

Targeting specific consumer choices, these goals are once again reflective of the dominance of the psychologically-based approach adopted within the zoo community. Reflecting back to Chapter 2, Section 2.3, the Trust's choice of behaviours strongly mirrors the target pro-environmental behaviours prescribed by DEFRA (2008; 2011). At present the WWCT has no mechanism in place to identify if visitors to the zoo are undertaking these specific behaviours as a result of their visit.

3.2.2.3 Engaging with communities beyond the boundary of the zoo

The activities of the zoo community with regard to its behaviour change agenda are heavily focused on their visitors. However, collectively and individually, zoos and aquariums are significant business operations, with considerable purchasing power and working relationships within their local and wider communities (Barongi et al., 2015). Whilst an element of the 'Don't Palm Us Off' campaign included encouraging visitors to sign a petition to lobby government for mandatory labelling of palm oil on food products, there is only very limited research in this arena. However, two main strands of activity are discernible, where zoos have sought to work beyond their institutional boundaries, seeking to influence practice and/or policy to the benefit of wildlife conservation. These strands relate to: (i) influencing procurement practices; and (ii) influencing attitudes in relation to wildlife conservation and the natural world.

(i) Influencing procurement practices

Collectively, the WAZA (World Association of Zoos and Aquariums) describes their membership as "…significant business operations with the ability to lead the way in sustainable business practices…" (Barongi et al., 2015 p.48). A number of zoos and aquariums are seeking to influence supply chains directly through their own procurement policies and practices and/or through seeking to influence the procurement practices of businesses in the wider community. Such an approach is exemplified by the work of Monterey Bay Aquarium and Chester Zoo in seeking to influence supply chains for sustainably sourced seafood and sustainable palm oil respectively:

- **Monterey Bay Aquarium - Seafood Watch** (Kemmerly and Macfarlane, 2008): This ongoing programme aims to raise consumer awareness of the importance of sustainable seafood production and to encourage the purchase and consumption of sustainably sourced seafood. Whilst it is centred on encouraging visitors to purchase and consume sustainably sourced seafood, in seeking to drive this demand, the Aquarium has also worked with restaurants, major retailers and food service corporations to source and utilise sustainable seafood.

- **Chester Zoo - Sustainable Palm Oil Challenge**: Also an ongoing programme, this seeks to raise awareness of the environmental problems caused by palm oil and encourages a switch to using sustainably sourced palm oil (Chester Zoo, 2015). Alongside promoting this message to zoo visitors, the zoo is working to influence the supply chain in favour of sustainable palm oil, through building relationships with local restaurants and changing its own procurement practices with retail and catering suppliers (J Telling 2015, personal communication, 10th October). As a result, local restaurants have been supported and encouraged to develop a palm oil policy and switch to using sustainable palm oil. In terms of the zoo's in-house procurement practices, retail and catering suppliers must now ensure that any goods supplied to the zoo contain only sustainably produced palm oil. In March 2019, Chester was named a Sustainable Palm Oil City following this zoo-led campaign, with more than 50 local organisations, including restaurants and the city's university, having committed to changing the way they buy palm oil (BBC, 2019). In this way Chester Zoo hopes to play its part in shifting the practice of palm oil production to one based on sustainability.

In the context of this research study, as a member of the WWCT's cross-departmental, cross-site Advocacy Group, I was aware of new work being developed by the Trust to influence behaviours beyond the realm of the individual in relation to the Trust's procurement policy. Figure 3.4 provides an example of this, summarising details of the WWCT's new approach to procurement with its suppliers, which it began piloting in 2018-19 (WWCT, 2018).

WWCT Procurement guidelines – piloting a new approach with suppliers
During 2018-2019 the Trust developed new guidelines for its suppliers, which were trialed by the retail department. This included a supplier questionnaire, which all current and potential suppliers were required to complete. This questionnaire asked a series of questions in relation to the suppliers environmental and ethical credentials. The environmental aspect is split into two main categories: organisational policies; and organisational practices. With regard to policy, the questionnaire asks:

- *Does your organisation have an environmental policy?*
- *Does your organisation have or are working towards an accredited environmental system?*
- *Does your organisation have a sustainability policy or environmental assessment of manufacture and disposal?*

With regard to practical operations, the questionnaire asks specifically about the following:

- *If Palm oil is used in production, do you have a full traceability system or use RSPO Palm oil?*
- *If wood if used in production, is it from sustainable plantations, recycled, reclaimed or fallen trees?*
- *Is packaging and other material used capable of environmental safe disposal or recycling?*
- *Is there a possibility of goods being delivered without using plastics for packaging?*

The responses to this questionnaire are recorded in a supplier evaluation matrix. These responses are colour-coded one of: red (unacceptable); amber (requires further discussion with supplier); or green (acceptable), to indicate the extent to which they meet the Trust's requirements under each category. When they meet with suppliers, they now make it very clear that unless they are able to improve their environmental performance, they may lose their business. In the process of trialing these guidelines with suppliers, the Trust has lost suppliers who are either unwilling to provide the requested information or unwilling to change their practices. However other supplier have been very willing to change or work towards changing their practices and the products that they supply to the zoo.

Figure 3.3 An explanation of the pilot WWCT procurement guidelines for retail suppliers (source: WWCT, 2018).

Engaging with suppliers in this way can help the WWCT to have some surety regarding products coming into its three sites. Looking ahead, it will also be useful for the Trust to talk with these suppliers to see if they have changed their practices in relation to other clients, in addition to the Trust, as a result of adhering to these procurement guidelines. In this way the zoo would be able to obtain an indication of the potentiality for its procurement guidelines to have a wider impact on suppliers. However, at this point in time the focus,

understandably, is on trialing and then rolling out the guidelines across all departments.

(ii) Championing marine conservation in tandem with local tourism

Whilst not the subject of an empirical study, an example of the ability and willingness of WWCT to secure influence in wider society is provided by its effective local lobbying in support of the value and importance of a Marine Conservation Zone (MCZ) for Torbay (C Rugg 2015, personal communication, 4th August).

MCZs protect a range of nationally important marine wildlife, habitats, geology and geomorphology, and can be designated anywhere in English and Welsh territorial and UK offshore waters (Joint Nature Conservation Committee, 2015). They have been subject to a rolling programme of consultation since 2009. During this first round of consultation, the English Riviera Tourism Company (ERTC) objected to the proposed MCZ designation. The ERTC (a now defunct private/public sector partnership, which worked to grow the value and volume of tourism in Torbay) was concerned that the designation would have an adverse impact on tourism in the area. However, through a meeting with ERTC directors in June 2013, the WWCT Living Coasts Operations Manager was able to convey the importance of the designation in protecting the marine and coastal environment, the asset at the very heart of the area's tourist appeal. This was instrumental in changing the ERTC's perception of an MCZ and has resulted in new partnership with Living Coasts to support tourism activities within the Torbay MCZ (designated in 2013). This example illustrates how Living Coasts used its position and knowledge both to allay the fears of an influential sector of the local community and to secure an understanding of the compatibility of sustainable marine management with a healthy tourism economy. This was particular important in light of the designation of an MCZ for Torbay in October 2013 (DEFRA, 2013).

Collectively, these procurement and influencing/lobbying activities are indicative of the potential of the zoo to further extend its behaviour change agenda beyond a focus on the individual, and to make an active contribution to

influencing issues of business practice and government policy. Through the lens of social theory, discussed in Chapter 2, this would be seen as the key mechanism by which the zoo community could make an influential contribution to the behaviour change agenda.

3.2.3 Exploration of the emotional dimension of human-animal encounters at and beyond the zoo

3.2.3.1 Conceptualising the zoo as a centre of caring

Within the current WAZA strategy (Barongi et al., 2015) there is reference to the ability and importance of wildlife attractions to illicit strong emotional connections - opening hearts and minds to positive environmental action. However, as described above, whilst ambassador species are mobilised in the service of a psychologically-based approach to behaviour change, the emotional dimensions of visitor-animal encounters at the zoo are obscured, with evaluation focused on the uptake of specific, pre-determined behaviours. In this way the emotional aspects of decision making are not captured, understood or well utilised in service of the behaviour change agenda at the zoo.

In describing the paradigm shift to centres for conservation, Rabb and Saunders (2005) stress the emotional dimension of visitor engagement with animals, framing the zoo as a "centre of caring", with the conservation mission dependent on "…caring by as many people in as many places as we can influence" (p.16). In contrast to the negative critique levelled in the reimaging of the role of the zoo discussed in Section 3.2.1, geographer Irus Braverman (2013) offers an alternative conceptualisation, which reframes notions of power and mastery in terms of caring relationships. Braverman (ibid) draws on Foucault's studies of the panopticon and pastoral power to explore the zoo's management and care of its animals. Through likening the zoo to the panopticon, and as a deliverer of pastoral care, Braverman reflects that the zoo "…sets out to discipline its human public to care about the individual zoo animal, and by extension, also about the animal's body doubles in the wild and even about nature at large" (p.20). In this way the zoo seeks to extend and delegate its own power of care to the visiting public - in the same way that the zoo bestows its care on the individual animals within that setting, and the wider

in situ flock, so visitors are educated and encouraged to do likewise. Thus, zoos have the capacity to inspire people to care for animals and wider wildlife, (Braverman, 2013), and the challenge becomes one of transposing the intensity of visitors care for individual animals to their more distant conspecifics, species and ecosystems in the wild (Rabb and Saunders, 2005; Braverman, 2013).

This caring role is particularly important in the context of nature conservation as the proximity of the individual to the object of care can have an important impact - the more remote an object is spatially and/or temporally, the more the notion of caring can become more abstract (Rabb and Saunders, 2005 – Figure 3.4). The individuals, species and wider biodiversity championed by zoos are generally found in ecosystems far removed from the zoo visitor's everyday life. However, by providing a close-up experience of wild and exotic animals, zoos can provide opportunities for connection with the species and biodiversity in geographically remote areas, and thus provide a base from which to encourage the care of species and ecosystems.

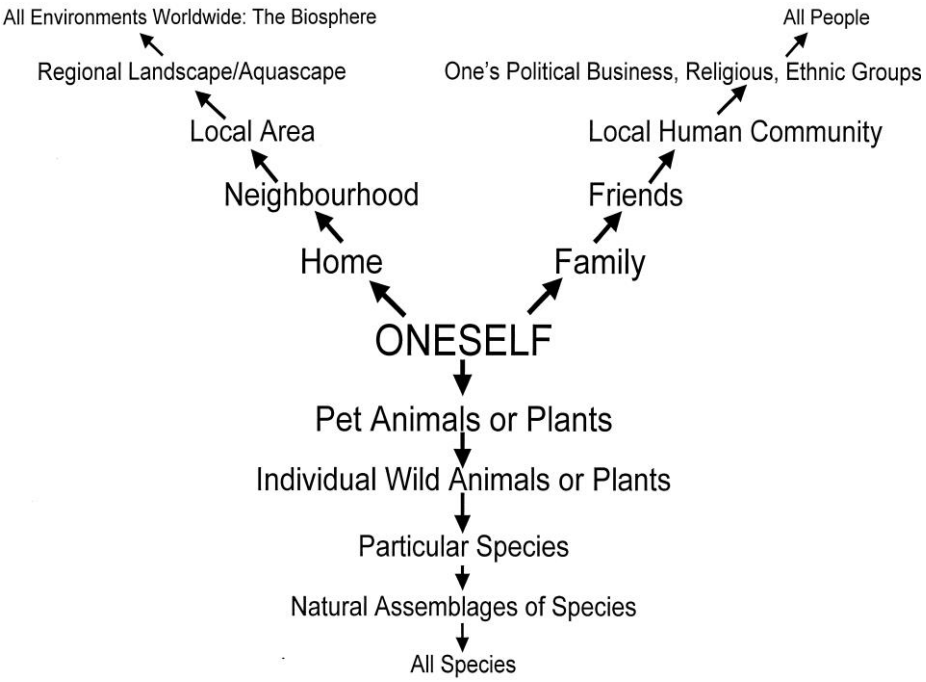


Figure 3.4 Relationships in caring: human, biotic and environmental axes. (source: Rabb & Saunders, 2005).

Whilst providing a clear illustration of the extension of caring relationships which the zoo hopes to achieve, Figure 3.4 also illustrates the complexity and challenge of what zoos are trying to deliver.

3.2.3.2 Psychologically-based exploration of human-animal encounters at the zoo

A small body of research within psychology, conservation biology and tourism studies, has sought to explore the emotional dimensions of visitors' encounters with animals at wildlife attractions. This work has employed a range of psychometric scales to quantify emotional responses to visitors' encounters with animals during the zoo visit, either during or soon after the moments of visitor-animal encounter. However, it has not explored specifically how these emotional responses might extend beyond the individual zoo animal, to its geographically remote conspecifics in the wild.

These studies have focused on two main aspects. Firstly, the application of a variety of psychologically-based self-report scales to measure the sense of self or 'connection' of visitors to the natural world as a result of the zoo visit (Implicit Association Test - Bruni et al., 2008; Environmental Identity - Clayton, 2009; Clayton et al., 2011). Within these different self-report scales there is a great deal of commonality in relation to the different aspects included, such as: empathy or caring for nature or its creatures; enjoyment of nature; experience with nature; and commitment to protecting nature (Cheng and Monroe, 2012). This approach has identified that visitors' encounters with animals can elicit feelings of empathy and concern, and willingness to support wildlife and wider nature (Clayton, 2009). Secondly, other studies have explored how the emotional responses of visitors can be mediated by the type of animals (Myers et al., 2004; Ballantyne et al., 2011; Hacker and Miller, 2016) and nature of the encounter with particular animals (Swanagan, 2000; Hayward and Rothberg, 2004; Luebke et al., 2016).

Although the emotional responses may vary in relation to many factors, the studies undertaken illustrate the ability of close encounters with animals to elicit strong positive emotional responses, including feelings of empathy and

concern. Indeed, within the zoo community, particular animals are used as ‘flagship’ species to raise awareness of specific conservation issues (Skibins, 2014). These species are most commonly charismatic megafauna, as exemplified by the use of the orang-utan and gorilla in the Zoos Victoria behaviour change campaigns discussed in Section 3.2.2.1, chosen due to their known relational capacity and potential to elicit empathy (ibid).

These zoo-based studies, along with the utilisation of certain animals as flagship species, are indicative of the potential for the zoo visit to influence human-animal relationships and visitors’ willingness to engage in wildlife conservation. They provide an important link with the behaviour change research discussed in Chapter 2, which highlighted the importance of engaging more richly with the emotional dimension of decision making in relation to pro-environmental behaviours, and explored how an individual’s identity and values in relation to the natural world can influence their attitudes and behaviours. It also links well with wider pro-environmental behaviour change research, which also indicates the importance of empathy (Berenguer, 2007), personal values and attitudes (Gatersleben et al. 2002); and connection with nature (Otto and Pensini, 2017) as important factors influencing an individual’s environmental attitudes and behaviours.

To date these findings have not been utilised by the zoo community to consider how a richer engagement with the emotional dimension of decision-making could be utilised to critique and/or challenge the dominant psychologically-based approach to behaviour change. The results of the studies discussed in this section are indicative of the value of a richer engagement with the emotional dimension of human-animal encounters at the zoo in relation to the conservation mission of the zoo. The current focus on CBSM, which focuses solely on behavioural outputs, is likely to fall short of providing a holistic account of the influence of the experience in engaging people in issues of wildlife conservation.

Whilst the potential of human-animal encounters at the zoo to elicit emotions such as empathy and concern, care should be taken in generalising with regard

to the nature of the emotional responses during the zoo visit. In an ethnographic exploration of North American zoos, sociologist David Grazian (2015) found variations in relation to factors including the types of animals (the alterity of some, such as insects often provoking dislike and disgust), visitor age and the culturally derived meanings individuals found in the animals exhibited. Taking a step back from the individual human-animal encounters, the emotional response to the presence of zoos within society may also be varied. As institutions in cultural life they are imbued with pre-determined notions of what they are, what they do, what they represent, and what place they should (or should not have) in present day society. In their critique of the emergence and cultural transformation of Adelaide Zoo, Anderson (1995) identifies that zoos evoke wide-ranging, ambiguous and contradictory response from their visitors. Citing research by Adams et al. (1991) and Townsend (1988) these "…reactions to zoo animals typically combine excitement, fear, awe, sadness and nostalgia, with unease about the captivity of animals" (ibid, p276).

3.2.3.3 Wider exploration of the emotional dimension of human encounters with the natural world

Beyond the zoo, research primarily within psychology and environmental education in the context of behaviour change for sustainability, has identified the importance of embodied experiences in some form of nature in helping to secure caring relationships and pro-environmental behaviours (Ward Thomson et al., 2008; Cheng and Monroe, 2012; Richardson et al., 2015a; Richardson et al., 2015b; Otto and Pensini, 2017). The emotionally-centred framing of behaviour change discussed in Chapter 2 (Crompton and Kasser, 2009; Crompton, 2010) also highlights the value of experiential engagement with animals and nature in this regard. Such research is set against a backdrop of an increasing lack of direct contact between people, especially children, and the natural world (Soga and Gaston, 2016), a phenomenon termed the "extinction of experience" by Pyle (cited in Soga and Gaston, 2016 p.94). In seeking to address this deficit of experience, Soga and Gaston (ibid) suggest a need for additional green infrastructure to be provided and made accessible in towns and cities, where the majority of the population live and/or work, coupled with more access to nature reserves and other areas managed for wildlife. These types of

‘natureculture’ are commonly described within the literature, and by many environmental organisations (e.g. Wildlife Trusts, RSPB) as those which can afford opportunities to have an experience of, and engagement with, the natural world. This notion of securing caring relationships through human-animal encounters will also be explored specifically with respect to scholarship in animal geography, in Section 3.3.

3.3 Animal geographies

The previous sections have centred on human-animal relationships within the specific context of the zoo. This section firstly moves away from this placed-based focus, to describe how human-animal relationships have been conceptualised and researched within geographical scholarship, before returning to the zoo to examine how geographers have engaged with the zoo as spaces and specific places of human-animal encounter. Finally, it broadens out again, to consider the wider exploration of affect and emotion within cultural geography. In so doing this section highlights the value of drawing on animal geographies with regard to this research study, through its relational framing of human-animal relationships and challenge to the ontological separation of human/nature. In addition, the exploration of affect and emotion provides a framework to aid understanding and definition of the study’s objectives in relation to the verbally-expressed emotional responses to visitors’ encounters with animals at the zoo, and their expressed feeling towards endangered wildlife and the wider natural world as a result of their experiences at the zoo.

3.3.1 Emergence and development of animal geographies

Whilst a continually evolving field, Urbanik (2012) identifies and describes three main phases in the development of animal geography, which has seen a major shift from its roots in zoogeography to the current day explorations of human-animal interactions and studies of the lives of animals themselves. These three phases are considered in turn below.

3.3.1.1 Zoogeography – the early tradition

The early tradition of zoogeography centred on identifying and describing the spatial distribution of animals across the globe, and the influence of the environment and animals on each other (Urbanik, 2012). This desire for identification, cataloguing and classification of animals placed animals firmly as objects for investigation. It grew rapidly during the centuries of overseas expeditions by explorers and naturalists, with men such as Alexander von Humboldt (1769-1859) documenting different environments and cultures (ibid). Following from, and influenced and inspired by von Humboldt (Wulf, 2015), scholars such as Darwin and Alfred Russell Wallace had a significant impact on the field of zoogeography. Within their work animals continued to be categorised as natural objects, isolated from, and without regard to, their interactions with their human neighbours (Philo and Wilbert, 2000).

This perspective began to change in the late 1930s, with the publication in 1937 of 'Ecological Animal Geography' by Allee and Schmidt, which included a chapter exploring human impacts on the environment and other species through activities such as deforestation and agriculture. Through such consideration of human impacts, Ubanik (2012) credits this work as the precursor to the second wave of animal geography, which emerged in the mid twentieth century, with an increasing focus on human-animal relationships over time and space. However, it is interesting to note that a recent biography of the life of Alexander von Humboldt highlights how the Prussian also wrote about, and drew attention to, the impacts of human activities on the environment (Wulf, 2015). Thus a richer, if nascent, engagement with studies of human – nature relationships appears to have been afoot in the early nineteenth century.

3.3.1.2 A broadening of scope: human impacts on the natural world

Geographical interest in the impact of human activities on animals and their environments developed during the 1950s and 1960s, drawing strongly on the work of Carl Sauer and the Berkeley School (Philo and Wilbert, 2000), with its emphasis on the study of human-animal relationships through the lens of livestock domestication and the attendant transformation of natural landscapes to agricultural ones (Urbanik, 2012). Therefore, whilst some consideration was

now being given to a relational engagement between human and animals, the dogma of the separation from, and domination of, humans over animals persisted, with no consideration given to the lives of the animals themselves.

Eventually, from Charles Bennett's call in 1960 for a 'cultural animal geography' (ibid), there started to emerge a more considered and less binary position from which to view human relationships with animals. Bennett wanted geographers to understand not only the importance of animals in the landscape, but also their engagement in the much broader spectrum of human life, thus creating "…an awareness that man is himself an animal and is intimately involved with the whole panoply of biological phenomena" (Bennett, 1960, cited in Urbanik, 2012 p.33). This notion of intimate engagement across biological phenomena has within it a sense of the concepts of entanglements, relationality and agency that have become the watch words of animal geographers today.

3.3.1.3 The 'cultural turn' and the new animal geography

It was not until the mid-1990s that the third phase and current approach to human-animal studies within geography emerged (Philo and Wilbert, 2000; Buller, 2014). The publication of a theme issue of Society and Space entitled 'Bringing the animals back in' (Wolch and Emel 1995) was, as identified by Philo and Wilbert (2000), a 'landmark' in reviving and focussing animal geography on the complex inter-relationships between humans and animals across time and space, and "…laid the groundwork for this re-visioning of what constituted animal geography" (Urbanik, 2012 p.35).

Whilst as previously described, the traditional zoogeographical approach to human-animal studies had continued to evolve, a 'cultural turn' within geography, and shifts in wider social theory provided the impetus for this third phase of the animal geography of today (Buller, 2013; Wolch and Emel, 1995, 1998). The move towards the post-modern and post-human sought to redress the dominant dualistic western paradigm of human separation from, and dominance over, animals and wider nature, seeking instead to develop and pursue a more inclusive approach to human-animal relations. It should be noted that whilst Wolch and Emel as North American geographers highlight the

importance of such a shift in perspective, it has been European geographical scholarship that has most strongly engaged with this approach, drawing on philosophers such as Derrida, Delueze, Foucault and Latour to open up exploration of, and to contest, human-animal difference. This will be discussed further in the following section.

3.3.2 Animal geographies today

Since 'bringing the animals back in' in the mid-1990s, animal geography has developed its presence as a dynamic subfield of geography, one "…in which animals matter individually and collectively, materially and semiotically, metaphorically and politically, rationally and affectively…" (Buller, 2014 p.310). Animal geographies seek to challenge the ontological separation of human/nature that is woven into every aspect of our society (Harraway,1992). This is clearly not an inconsiderable challenge given that, as Harraway goes on to note, "…the spatialities in which the ontological separation of nature and society inheres are woven through all manner of scientific, policy, media and everyday practices that enact nature as 'a physical place to which you can go' " (p.66). Today animal geographers are contributing to wider scholarship in the field of human-animal relations from the more established disciplines of anthropology, sociology and psychology (Philo and Wilbert, 2000).

Central to this new role has been the exploration of the complex network of spatial relationships between humans and animals (Philo and Wolch, 1998), encompassing the whole spectrum of human-animal encounters, be it at the zoo, as pets, in the laboratory, as figures in popular culture and so on (Urbanik, 2012). Such exploration also required at least some acceptance of both the agency of the animal, and how such agency is enacted and understood in both time and place (Buller, 2014). The following sections describe how animal geography has, and continues to, shape itself in the present time, noting some of the key influences, particularly from European philosophy, which are used to help frame, explore and contest human-animal difference.

3.3.2.1 Cultural utilisation and placing of animals

In its early explorations, the new animal geography drew primarily on cultural geography to explore and explain how animals have been utilised to imbue meaning within our own cultural places and spaces. The first study to use the terminology of animal geography (Anderson, 1995) epitomises such an approach, where an investigation into the history and development of Adelaide Zoo is used to explore the zoo as a particular culturally constructed depiction of nature, and as a manifestation of the human/non-human animal and culture/nature divide (see Section 3.3.3.1 for further discussion). The inference from such a critical examination is, as Buller (2014) points out, the inherently geographical notion of the animals in question being, as defined by Philo and Wilbert (2000) as in some way 'out of place' in the surroundings in which they find themselves, existing as "…'in-between' animals…existing in 'in-between' spaces" (p.21). Given that the majority of zoo animals are captive bred, rather than from wild origins, are most commonly exotic, not feral and yet not domesticated, this notion plays very well in the context of the zoo, and the presence of animal in such spaces "…causes conflict with human users, human intentions and human categorizations" (Buller, 2014 p.311).

Philo and Wilbert (2000) suggest that through a focus on how animals are imagined or represented within our cultures provides rather a narrow perspective of human-animal relations, where the animal plays only a passive role. They go on to identify the value and importance of understanding non-human agency within these relations, and how animals may shape, alter or resist human attempts to order and place them. Thus, moving beyond these culturally based studies, animal geographers have increasingly sought to explore the relationality between humans and animals.

3.3.2.2 Relational encounters – challenging the human/animal divide

Ours is a world rich in a multiplicity of interactions between the human and non-human, not least the earth's flora and fauna, to which we are intimately connected, and reliant upon, for our very existence. In exploring this relational approach, animal geographers have drawn on literature and schools of thought

used widely in the broader sphere of human geography, which provide critique of modernist structures, divisions and categorisations (Buller, 2014).

Concepts developed through the work of European philosophers including Foucault, Derrida, and Deleuze and Guatarri, have played a significant role in influencing the academic enquiry of animal geographers. Buller (2014) highlights the contribution of such philosophical thought in: challenging the notion of a human's autonomous or individual will (Foucault); examining the changing juxtaposition of 'self and other' (Derrida); and the notion of 'becoming animal' (Deleuze and Guatarri). In addition, Whatmore and Thorne (2000) identify the role of feminist studies and Actor Network Theory in undermining the "…tired divisions between the natural and the cultural, the real and the imagined…" (p.185). Whatmore (1997) coins the term 'hybrid' geographies as a means of encapsulating an approach to relationality, which explores ways of recognising and accommodating the presence of non-human animals (and also technological devices) within our lives. These geographies are essential, Whatmore (2002) argues, both to our exploration and understanding of everyday life and in providing a necessary bridge across an academic chasm between human and physical geography, with its attendant binary impulse and separation between human/culture and nature/other materialities. By re-imagining and reconstructing human – non human interactions in this way, notions of agency are also troubled. Acknowledging the more than human world as an active part of the social world decentres social agency away from the human, and from the binary notions of subject/object – in its place agency becomes a relational achievement (Whatmore, 2000). Through this the concept and materiality of the natural world is transformed from Harraway's "physical place to which you can go" to an active, ever present and shifting presence within our lives (Whatmore, 2000).

In pursuit of this relational approach a variety of research has explored the meanings of human-animal relations and the scales at which they operate (Buller, 2014). For example, Whatmore and Thorne (2000), describe and explore the spatial formations of the real and virtual networks of human-animal relations through a study of two elephants kept at Paignton Zoo, Devon (Section

3.3.3.2 provides a more detailed account of this). At a more localised and personalised scale, studies have sought to provide "…a more intimate and experienced set of lived and dwelt encounters with actual 'critters'…" (Buller, 2014 p.313). Examples of this include Harraway's (2008) explorations of the relationship with her pet dog, Ms Cayenne Pepper, and Lorimer's (2010) 'seal diary', a chronicle of his encounters with seals whilst out running in the city: "…tentative examples of learning-by-witnessing….each giving voice to momentary intensities of relation" (p.71-72).

3.3.2.3 Relational ethics

Whilst noting that animal liberation was never the main purpose of animal geographies, these relational encounters of animal geographies also contribute to a broader ethical debate regarding relational ethics and the treatment of nonhuman animals (Buller, 2016). They can help to illustrate how different places and spaces such as wildlife attractions, farms and urban landscapes provide different lenses through which to explore "…the differentially constructed ethics of human-animal interactions and, consequently, the varied ways we live together with non-humans" (Buller, 2016 p.3). This is exemplified by the previously mentioned study of Adelaide Zoo (Anderson, 1995).

This relationality can also serve to highlight the agency of individual animals in helping to secure particular human responses, as identified by Lorimer (2007). Lorimer (ibid) describes and explores relationality in human-animal relationships in terms of nonhuman charisma, a concept which is defined as "…the distinguishing properties of a non-human entity or process that determine its perception by humans and its subsequent evaluation" (ibid, p.915). This concept of nonhuman charisma is conceived of as relational, ontological and affective, where the agency of the nonhuman animal serves to secure ethical and caring responses from humans (ibid). Comprised of three different aspects – ecological, aesthetic and corporeal charisma – the typology of aesthetic charisma is of particular relevance to this research study. This applies to the aspects of an organism's behaviour and appearance that trigger specific emotions in humans during moments of encounter between the human and nonhuman organism (ibid).

Such work highlights that ethical relations may evolve and develop through human-animal relations, rather than being pre-existing and established moral codes of behaviour (Buller, 2016) "…an ethics that is responsive to (and to some extent creative of) the co-presence and mutual corporeality of non-human others" (p.5).

3.3.2.4 Critical animal studies

Within considerations of ethics, many animal geographers have taken a highly critical stance in relation to the ways in which humans treat animals, be that as food, experiment, spectacle or companion (Buller, 2016). This approach, termed Critical Animal Studies (CAS), has emerged as a 'critical counterpart' to other scholarship within animal studies, its liberationist positioning driving a commitment to the removal of all forms of animal abuse (Buller, 2016). The development of this field of study has led to an increasing division between this and other areas of animal studies (Wilkie, 2013). Buller (2016), amongst other scholars, suggests that such a bifurcation is both false and unhelpful, as work across the spectrum of animal studies is facilitating increased awareness and understanding of the animal, and in so doing helping to move beyond the simplistic division between human and nonhuman animals.

Cleary from a CAS perspective the existence of the zoo, as a cultural institution and place of animal captivity and confinement, is untenable. Research studies such as this current one, which seek to explore alternative ways in which the zoo might seek to secure an emotionally-centred engagement with animals, which moves beyond the paradigm of the nudged consumer, might be heavily criticised or rejected. Indeed Buller (2016) highlights charges of complicity from the CAS quarter in relation to animal studies in relation to issues including animal testing and animal agriculture. However, this duality within explorations of human-animal relationships has the capacity to limit how we understand "…the entangled nature of our symbolic and material configurations with a multitude of critters that constitute our everyday lives" (Wilkie, 2015 p.332), and the potential to reimagine our relationships and responsibilities in relation to animals.

3.3.2.5 Globalising and decolonising animal geographies

Hovorka (2017) identifies the value of global animal geographies in furthering understanding of human animal relations in a number of ways, specifically (i) uncovering the complexity and diversity of peoples engagements with a diversity of animals in a range of contexts; (ii) the influence of global scale processes, driven by neoliberalism, in shaping human-animal engagements at the local scale; and (iii) revealing within species differences in the lives of individuals and groups of animals. However, Hovorka also identifies the need for the further globalising of animal geographies scholarship, to help explore and illuminate the ways in which "…different people around the world relate differently to different animals" (p.383). A necessary and complex component of this endeavour is the decolonising of animal geographies. Through challenging dominant knowledge-cultures of, and assumptions about, human-animal relations, and encouraging and opening up different paths for knowledge construction, animal geographies has the potential to uncover and embrace a broader range of human and non-human subaltern voices and perspectives (ibid).

3.3.2.6 Challenges for animal geography

From the above exploration it is evident that animal geography has come a long way from its zoogeographical roots, and that it faces a number of challenges in its work to reimagine and reinterpret human-animal relationships. Central to these is addressing how to move our focus and capabilities beyond the more straightforward understanding of the way in which animals affect human lives, and to give voice to the world of the animal (Philo and Wilbert, 2000) in whatever forms they take or locations within which their lives intersect and intertwine with ours. Buller (2015) echoes this, highlighting the methodological challenge of capturing and presenting the presence and agency of the animal within the world, and the importance of this in undermining the long-held, dualistic paradigm of human-animal relations, to emerge with "…a more fluid, turbulent and relational human/animal ontological configuration of cultural practice, spatial formations and ultimately de-centred (and exclusively human) subjectivities…"(p.378).

Drawing on Latour's work in Actor Network Theory, Buller (2014) also wishes to place the subfield as one where the use of 'social' is not confined to the purely human domain or human-centred categorisation, but instead represents a relational approach, where both the material and conceptual places and spaces within which such human-animal connections occur, can move beyond the normative orderings and separation of humans from non-human animals.

Building on, and moving beyond this, animal geographies are also challenged with the task of creating a more radical form of politics, which can acknowledge and incorporate a multitude of human-animal relations (Buller, 2016). In this way animals can be understood and appreciated for their vitalism, materiality (Whatmore, 1999) and agency, and not as a "…relatively powerless and marginalised 'other' partner…" (Philo and Wilbert, 2000 p.4). Within such a framework, animal geographers appreciate and seek to present animals as subjects of their own lives, and not simply objects of our control or for our exploitation (Urbanik, 2012).

Finally, drawing on Hovorka (2017), the globalising and decolonising of animal geographies has the potential for the sub-discipline to provide a global perspective of human-animal relationships, bringing together a multitude of human and non-human voices, perspectives and contexts.

3.3.3 Explorations of the zoo by animal geographers

To date there have been relatively few forays by cultural/animal geographers into the world of the zoo. This may appear paradoxical, as their unique and diverse expression of the juxtaposition of the culture/nature interface, present potentially rich sites of exploration. However, those geographers who have ventured to the zoo (not always literally), have explored a variety of issues central to animal geography, in particular: cultural representation and boundary-making between humans and animals; real and virtual networks and displays of wildlife; relationality, agency and ethics; and commodification of zoo animals in the service of wildlife conservation. Such enquiry prompts wider questioning of

the role of zoos in society, and what this tells us about the place of humans and animals within it (Urbanik, 2012).

Whilst this chapter has already highlighted some of the ways in which geographical scholarship has engaged with the zoo, the following section explores this in more detail. Within this discussion consideration is also given to the temporal aspect of these studies in relation to the evolving mission of the zoo (discussed in Section 3.2.1). It highlights a range of approaches to such enquiry, and identifies some of the main themes which emerge for consideration with regard to human-animal relations.

3.3.3.1 Cultural representations of human-animal relations

The significance of Anderson's (1995) critique of the zoo for the then emerging work of a new approach to animal geography has been noted in Section 3.3.2.1. This study explores the emergence and cultural transformation of the Royal Zoological Society of South Australia and its physical manifestation as Adelaide Zoo, through the lens of the western, dualistic nature/culture, human/nonhuman paradigm. Anderson argues that the cultural representation of nature within the zoo reflects the persistent discourse of human domination over animals/wider nature. Thus, whilst the modern zoo may look very different to the old-style menageries, with modern more naturalistic displays designed to address potential negative concerns and emotions about the animal exhibits, the underlying paradigm is essentially the same. Zoos continue to represent and embody "…a culturally commodified and socially produced nature, designed to shape a distinctive ('human') experience of Nature for late twentieth century audiences"(ibid, p.291). In this way zoos fail to overcome "…the dualistic legacy of past relationships"(ibid, p.290).

This research explored the zoo up until the early 1990s, when, as discussed in Section 3.2.1, the zoo community was in the early stages of embracing the role of conservation centre. Nearly twenty years on from Anderson's study, the work of Braverman (2013), discussed in Section 3.2.3.1, provides an alternative critique of human-animal relations at the zoo. These two studies are reflective of the wider ongoing discourse around the legitimacy of the zoo within the 21st

century, where the relative merits of the zoo's conservation and education mission are set against the zoo's historical legacy and confinement of animals (with attendant concerns about animal welfare) for the enjoyment of paying visitors. These themes recur through the research of other geographers at the zoo, where through exploration centred on exhibit design and the spatial networks of animal management and display, wider issues of relationality, agency and ethics in zoo-based human-animal relationships are brought into focus. These studies are explored further in the following sections.

3.3.3.2 Animal exhibition at the zoo: exhibit design; spatial networks of management and display; and commodification

(i) Zoo design and exhibition of the animal: Modernism at London Zoo in the 1930s

Today the 1930s Penguin Pool designed by architect Berthold Lubetkin stands in splendid isolation at ZSL (London Zoo). With the pool recognised as unfit for its incumbents, gone are the penguins and the crowds that gathered around them. The pool has now been recast as a Grade 1 listed structure - a memorial to modernist design. Meanwhile the penguins can now be found within the zoo's grounds at Penguin Beach, complete with a much larger, deeper pool, rocky shore, tall shade trees and other vegetation.

In comparison with the modern-day naturalistic design style of Penguin Beach, Lubetkin's modernist design can be cast as one purely focused on providing a spectacle for the visiting public, reinforcing the human/nature divide, with animals provided as entertainment. However, Gruffudd (2000) offers a reinterpretation, arguing that the modernist inspired designs were not conceived of to symbolise or reinforce the human/animal divide. Instead they were experiments with the aim of "…harmonising living creatures and their design spaces" (p.222), which was part of the wider modernist project of creating both a healthy and well-ordered society. In this way the burgeoning culture of modernism was responsible for the creation of zoo modernism, as the zoo was recruited to the wider modernist project.

For the likes of modernist reformers and applied scientists, the animals in the zoo were "…organisms to be understood, nurtured and housed efficiently, as, indeed, were humans." (Gruffudd, 2000 p.223). With regard to the Penguin Pool, constructed in 1934 the aim was "…the construction of a biologically efficient space that would also fulfil the Zoo's entertainment and education functions" (Gruffudd, 2000 p.229). Thus, whilst the idea of, and focus on, stage setting and spectacle were still very much to the fore, Gruffudd argues that Lubetkin, through his research into animal behaviour and character within the design process, was seeking to balance exhibition design and spectacle with animal care. This approach leads Gruffudd to take a benevolent stance in relation to Lubetkin's intentions: "There was a significant degree of environmental humility in his treatment of animals, despite appearances" p.240). However, over time Lubetkin's design showed its value more as spectacle than as a positive living environment. By 1950 the Superintendent of London Zoo described pool as a heat trap – its only value being in providing good viewing for the zoo's visitors (Gruffudd p.229).

Gruffudd's exploration of the Penguin Pool is an important part of the story of zoo design and the shifting relationship between the needs of the exhibited animals and the visiting public. Whilst it reflects some level of awareness and positive intentions towards the welfare of the zoo animal, the lack of knowledge and understanding of the appropriate living conditions required by captive penguins, allied to the strong focus on the spectacle, led to its eventual demise. However, it should be noted that this Penguin Pool was only closed in 2003 (Derbyshire, 2011), so that at the time of Gruffudd's work, it was still home to the zoo's penguins, a fact which does perhaps not reflect well on the zoo's management of the tension between the needs of zoo animal and the visitor.

(ii) Traditional and electronic zoos: boundary making, relationality, agency and ethics

Davies (2000) touches on a number of the themes central to animal geography, through a consideration of the role of the traditional zoo (i.e. zoo as a material place with an animal collection) and electronic (i.e. virtual) zoo as places of animal capture and display. As a framework for this exploration Davies draws

on the work of Latour, firstly the concept of zoos as ‘centres of calculation’ (Latour, 1987 – cited in Davies, 2000), controlling knowledge production in natural history through their accumulation, management and display of wildlife. Secondly, Davies utilises Actor Network Theory to understand the real and virtual zoo as representing wildlife through differing, complex interplays of people, devices, documents and images. Through this approach these modes of display are considered in relation to the spatial practices of natural history construction and representation for consumption by the general public. Consideration is then given to the implications for how humans encounter, perceive and engage with the animals they encounter, and the relative extent of animal agency within these distinct settings.

Davies notes that despite the development of more naturalistic enclosures at the zoo, the obvious boundary making between human and animal persists. However, this does not, they argue, render the zoo animal a passive object for public spectacle. Instead the animals can be understood as active agents (albeit rather diminished and captive) in the zoo visitor – zoo animal encounter: “One of the most potent parts of the zoo experience is that, although curtailed by boundaries and unequal separations, you are in a place that is shared between people and animals” (ibid, p.252).

In contrast, Davies asserts that whilst the electronic zoo in its many manifestations as wildlife film, TV documentary, photography and so on, provides a very popular medium for engaging with animals and wider nature, this virtual experience cannot provide us with such a rich experience of the animal: “Limited to visual experiences, the human visitor misses out on the multi-sensory engagement and interaction with animals possible within the embodied spaces of older zoos” (p.261).

Following from this, and in comparing it with the images produced and consumed within the virtual zoo, Davies postulates that the corporeality of the traditional zoo animal and attendant multi-sensory experience of these sites allows for a richer engagement between zoo visitor and zoo animal. The traditional zoo affords the animal the ability to embody an agency not found in

its electronic counterpart. Thus, its animal inhabitants can be considered as "…active subjects embodying a form of agency in their ability to continue to challenge, disturb and provoke us" (p.253). Through this agency the traditional zoo can provide, Davies argues, a better space for reflexive thought about our relationship with animals. In addition, whilst materially the electronic zoo frees animals from captivity, it casts its images into another form of confinement as "…endlessly circulated images – and the further disengagement of humankind from animals – in the electronic zoo gives cause for further concern" (p.260).

(iii) Spatial formations of wildlife: delivering the practice of wildlife conservation at the zoo

Like Davies (2000), Whatmore and Thorne (2000) explore both real and virtual animals, but in this instance attention is paid to real zoo animals, their corresponding virtual embodiment in information management systems, and how these two modes of spatial formations of wildlife at the zoo are utilised in pursuit of the zoo's modern day objective – the practice of wildlife conservation.

Paignton Zoo, Devon, is presented as a specific site of study, where visitors can encounter real animals, and as an institution where these animals are circulated virtually, both electronically via databases, and physically, by the transfer of animals between zoos. Both these networks are identified as necessary contributors to the zoo's conservation mission, termed by Whatmore and Thorne as "calculated foresight" (p.190): planning ahead for endangered wildlife through breeding programmes to release animals into the wild. The virtual network of information on each zoo animal delivers this function through informing "…the management and planning of zoo 'collections' in a variety of ways."(p.188), crucially their breeding programmes.

Alongside captive breeding, the zoo also seeks to enrol its visitors into this conservation mission through education and engagement with its physical animal collection. Whatmore and Thorne describe the enrolling of the visitors in this notion of calculated foresight as being "…a fraught but necessary task…" (p.192), as the income secured from visitors is the main source of revenue which supports the running of the zoo. The spatial layout and exhibit design for

the captive animal collection is identified as central to this enrolment, with the development of more naturalistic enclosures to help deliver the illusion of animals in a more "natural context" (p.191). The authors explored this notion at the time of a £6 million remodelling and reconfiguration of Paignton zoo, carried out in 1997, and specifically the creation of a new elephant enclosure. At that time the two female elephants, Gay and Duchess, were a key visitor attraction, and thus at the heart of the zoo's efforts to engage its visitors in its conservation mission, specifically its' in situ work in Nigeria.

However, despite the resources and time given to the management of these two animal networks, Whatmore and Thorne question the extent to which zoos are able to deliver their conservation mission. Whilst the study did not engage with an investigation of visitor engagement/education outcomes, in terms of captive breeding programmes it identifies that the zoo is rarely able to reintroduce its captive bred offspring. Indeed, in witnessing the relocation of these elephants from their existing to their new enclosure, the authors note the stress and disorientation experienced by the two animals, surmising from this that "…any potential reintroduction to the wild would be traumatic" (p.194). In conclusion the authors suggest that: "For all its' calculated foresight, then, this is a wildlife network whose precious cargo is destined, for the most part, to remain firmly in the hold" (p.190).

3.3.3.3 Commodification of charismatic animals at the zoo

As highlighted in Chapter 2, Section 2.2.2.1, Lorimer (2015) identifies the increasing marketization of wildlife conservation within the Anthropocene, with citizen-consumers co-opted by environmental organisations to provide financial support for their conservation work. As an example of this practice, Lorimer, as for Whatmore and Thorne (2000), notes the crucial role of paying visitors in securing the financial success and ongoing existence of zoos, and expresses the tensions also identified by Philo and Wilbert (2000), namely of balancing education, advocacy and conservation alongside entertainment. In service of securing this balance, zoos have come to rely on a very small selection of charismatic species, which Lorimer terms "…the principal breadwinners in this zoological pantheon" and, drawing on Donna Harraway, "…exemplary forms of

lively capital" (p.145). Examples of these animals include giant panda, lion, tiger and elephant. The impact of such species is exemplified with reference to the pair of giant pandas on loan to Edinburgh Zoo from the Chinese government. The presence of these pandas led to a £5 million increase in annual revenue, which probably saved Edinburgh Zoo from closure (MacDonald, 2013).

Lorimer highlights the commodification of interspecies encounters at the zoo as part of a wider framework of the "neoliberalism of conservation" (p.141), with animals brought to the market place in service of securing funding from individual visitors. Of particular concern to Lorimer is what they term the "captivity paradox" (p.146), where many of these large, charismatic species are those that fare the least well in captivity. Even if one is open to and sympathetic towards the conservation mission of the zoo, for Lorimer it is hard "…not to see these charismatic icons as sacrificial victims, performing their captive, commodified, and simulated lives so that other (often less charismatic, free-ranging) life might persist" (p.146).

3.4 Affect and emotion in cultural geography

In support of the exploration of the relationality of human-animal encounters, this research study also draws on conceptualisations of emotion and affect in cultural geography (Anderson, 2006; Pile, 2010). This provides a framework to aid understanding and definition of the study's focus on the verbally-expressed emotional responses to visitors' encounters with animals at the zoo, and their expressed feeling towards endangered wildlife and the wider natural world as a result of their experiences at the zoo. This section provides a description and discussion of how geographers have engaged with the emotional dimensions of primarily human experience, and in so doing how distinctions have emerged in relation to terminology between affect and emotion, with attendant methodological implications for research enquiry.

Many scholars view a guest editorial on emotional geographies (Anderson and Smith, 2001) as being the turning point in interest from geography in the study of emotion and affect (Pile, 2010). This editorial called for emotions to be taken seriously as part of the then 'policy turn' in human geography. A previous lack of

geographical enquiry in this arena may not have been particularly surprisingly given the complexities of exploring, capturing, describing and defining emotional landscapes (Bondi et al., 2005). Emotional geography takes on this challenge, endeavouring to "…understand emotion – experientially and conceptually – in terms of its socio-spatial mediation and articulation rather than as entirely interiorised subjective mental states" (Bondi et al., 2005 p.2).

This emotional 'turn' in geography has seen a wealth of scholarship describing a variety of emotions in multiple contexts – everything from anxiety and anger to guilt, happiness, love, panic and worry (Pile, 2010). A range of terminology is used to capture these more than rational aspects, including affect, emotion, mood, passion, intensity and feeling, with such words used interchangeably (Anderson, 2006). Distinctions and definitions have emerged within geographical scholarship between the notions of affect and emotion (Anderson, 2009), although Pile (2010) highlights that the notion of affect can be found scattered through research on emotions in geography, resulting in its meaning remaining elusive.

In seeking to conceptualise and distinguish the difference between affect and emotion, Anderson (2006) introduces the notion of a 'layer-cake' model of the mind-body (Pile, 2010), which can be summarised in Table 3.2 below:

Affective/emotional term	**Description**
Affect	Non-cognitive. Resides in bodies. Not confined to a body, affect refers to flows between bodies.
Feeling	Pre-cognitive. A response to transpersonal affects. Feelings lie between affect and emotion. They are not yet expressed or nameable, and remain tacit and intuitive.
Emotion	Cognitive. Emotions are expressed feelings, being both conscious and experienced. Although emotions emerge from feelings, and represent personal experience, they are socially constructed through language and other representational practices.

Table 3.2 Conceptualising the affective dimension (source: author, drawing on Anderson, 2006)

As Pile (2010) highlights, this conceptualisation postulates a division within the subjective state, between affect and feeling, and between feeling and thought. Affect, unlike emotions, cannot be localised in personal experience or expression (Anderson, 2006; Pile, 2010) as it emerges in encounters between bodies (not necessarily exclusively human) – (Anderson, 2006). It is "…a quality of life that is beyond cognition, and always interpersonal. It is, moreover, inexpressible; unable to be brought into representation" (Pile, 2010 p.8). With explicit reference to the notion of hope, Anderson (2006) exemplifies the differential aspects of affect and emotion, with hope considered in three specific ways (Pile, 2010): "…as an affect, in flows of hope; in feelings, as a sense of hopefulness; in emotion, as actually expressed hopes" (p.9).

Despite these conceptual differences, Pile (2010) notes a methodological emphasis across both emotional and affective geographies on ethnography. These can be understood in broad terms as an emphasis on the significance of expressed emotional experiences within emotional geography, where this expression is considered to provide open and authentic accounts of experience (Pile, 2010), and a contrasting attention on the importance of inexpressible affects within affectual geographies (Pile, 2010). However, the nature of ethnographic study undertaken is reflective of the contrasting focus of emotional and affective geographies. Within the former, talk-based qualitative approaches have been heavily utilised (Anderson and Harrison, 2016), which seek to express emotional experience through word and text. However, in recent times a range of more novel approaches have been utilised including the use of photographic materials, story boards and art activism (Little, 2019). In contrast, affective geographies seek to avoid the considered limitations and failings of emotional geography (Pile, 2010), including: the objectifying of emotional states through naming; and the production of superficial narratives of lived experience due to a focus on expressed accounts (Anderson and Harrison, 2016). In seeking to represent aspects of the emotional experience that lie beyond the scope of representation, scholars have turned to non-representational theory as

a means to try and explore these more elusive dimensions (Bondi et al., 2005; Pile, 2010), which emphasises how practices are enacted, rather than simply on the outputs of such performance (Thrift, 2007).

3.4.1 Animals' atmospheres

A body of work to emerge within affective geographies relates to the concept of atmospheres. Drawing on Bissell (2010), Lorimer et al. (2017) describe these as "…affective intensities of a particular space that give rise to events, actions, feelings and emotions" (p.1). Whilst scholarship has explored the nonhuman materialities of atmospheres and the ways in which these can shape human experience, such study has included only limited exploration of animals as either the subjects or receptors of atmospheres (Lorimer et al.., 2017). In exploring and developing this concept of "animals' atmospheres", Lorimer et al. (2017) discuss the ways in which these are engineered within specific settings, including zoos and aquariums. Within these settings "atmospheric engineering" (ibid, p.37) is undertaken to "…catalyse specific affective atmospheres…" including wonder, joy and excitement, (ibid, p.38) for the visiting public. Such engineering includes the use of anti-depressants, animal training and the use of synthetic pheromones (ibid).

3.4.2 The 'encounter' in cultural and affective geographies

The 'encounter' is a key site of analysis for affective geographies. Wilson (2017) examines how the notion of 'encounter' has been deployed across geographical scholarship, attending to engagements between a vast array of different bodies and materialities. Drawing on this range of research, and arguing that encounters are fundamentally about difference, Wilson offers a conceptualisation of 'encounter', where the term signifies not just any form of meeting, but one which is charged with value: "…encounters are not only about the coming together of different bodies but are about meetings that also make (a) difference" (p.464).

Wilson (2017) identifies a whole body of literature regarding the geography of 'encounter'. Whilst the aspect of this paper in relation to the temporality of

human-animal encounters at the zoo will be drawn on in Chapter 5, the word encounter in this thesis is used in a general way to describe human-animal engagements at the zoo, following the approach of Davies' (2000) in their account of human-animal interactions at the traditional zoo, discussed in section 3.2.2.2.

3.5 Concluding summary

This wide-ranging chapter has described and explored key aspects of human-animal relationships of relevance to this research study. It has built on insights from Chapter 2, contributing to this research study's aim and objectives in relation to the value and importance of a richer engagement with the emotional dimension of decision making and behaviour change, specifically in relation to human-animal encounters at the zoo, and more broadly with regard to human interaction with the natural world.

In considering the zoo as a particular site of human-animal encounter, it has described how in its evolution into a modern-day centre for conservation, the zoo now embraces a multi-dimensional mission, with aims related to: entertainment, conservation, education and research. The chapter has identified that a key driver in the emergence of the zoo as a centre for conservation was rising social concern and criticism regarding the captivity and confinement of animals. However, in this present-day incarnation, zoos have continued to attract criticism from a broad spectrum of academia, animal rights organisations and the popular media. Much of this criticism has centred on the ethics and morality of keeping sentient animals in confinement and captivity (e.g. Regan, 1995; Mullan and Marvin, 1999; Lindburg, 2008). Specifically, within academic spheres, key aspects of this criticism centre on: (i) the zoo as a place of spectacle for entertainment, which continues to reinforce the mastery and dominance of humans over animals; (ii) the tensions/inherent contradictions in the delivery of entertainment alongside the other three aims of the zoo; and (iii) the commodification of wildlife in pursuit of financial gain

With respect to behaviour change, securing specific, pre-determined pro-environmental behaviours from its visitors has, in recent times, become the key

tenet of the educational agenda of the zoo. In support of this aim, zoos have adopted the psychologically-based approach to behaviour change dominant within neoliberal western government. Specifically, they have mobilised community-based social marketing, a context specific form of social marketing, to engage with their visitors. Individual ambassador animals at the zoo are often utilised as a focus for behaviour change campaigns, acting as proxies for the conspecifics of their species in the wild, and for the habitats and ecosystems within which these conspecifics reside. Whilst engagement with the 'more than rational' or emotional aspects of behaviour change are necessarily limited with the psychologically-based model, other psychologically-based studies at the zoo have identified the potential for the zoo to engage more richly with the emotional dimensions of behaviour change. This small body of research has highlighted the capacity of human-animal encounters at the zoo to elicit caring and empathetic responses. This aligns well with the conceptualisation of the zoo as a centre of caring (Rabb and Saunders, 2005; Braverman, 2013). However, to date these emotionally-centred studies have not been used to trouble the dominant approach to behaviour change within the zoo community.

Whilst the major focus of the behaviour change agenda is centred on the zoo visitor, beyond the boundary of the zoo, there is considerable potential to engage with, and influence local communities and other stakeholders in relation to the wildlife conservation mission of the zoo. Although very little studied to date, the current work at specific wildlife attractions is indicative of this potentiality, particularly in relation to influencing supply chains through the procurement practices of the zoo and local business. This is suggestive of the capacity of the zoo community to develop its behaviour change agenda into the wider public arena, to address issues beyond the level of the individual, in line with the approach advocated by social practice theory, discussed in Chapter 2.

The chapter has also identified the value of mobilising scholarship from animal geography in the exploration of human-animal encounters at the zoo. At its heart, this sub-discipline seeks to challenge the ontological separation of culture/nature, human/animal, acknowledging the relationality of the entanglements between humans and animals. Whilst not extensive,

geographical enquiry at the zoo has explored a variety of themes pertinent to animal geography. Within this body of research, several studies identify the key role of the zoo visitor, both as a source of revenue, and as an audience to be actively engaged in the practices of wildlife conservation. To date little attention has been paid to the influence of interspecies encounters at the zoo on this paying public, and no ethnographic research has been undertaken in the field with these visitors. This may be reflective of a wish to decentre the human, and to focus on bringing forth the perspective of the animal at the zoo. However, given the identification of the agency of the animal in these embodied zoo encounters, there is clearly opportunity to further explore the influence of this relational engagement with regard to the conservation mission of the zoo.

Finally, the chapter draws away from the zoo to consider the study of affect and emotion in cultural geography, as a means to support exploration of the relational engagement in human-animal encounters. This provides a framework to aid understanding and definition of this research study's focus on the verbally-expressed emotional responses to visitors' encounters with animals at the zoo, and their expressed feeling towards endangered wildlife and the wider natural world as a result of their experiences at the zoo.

Having now completed the review of literature pertinent to the development of the aim and objectives for this research study, the following chapter, Chapter 4, describes the methodological approach employed to enable the exploration of this research study's aim and three objectives.

Chapter 4: Methodology

4.1 Introduction

This chapter provides a detailed account of the methodology applied to the study of visitors to Paignton Zoo in order to address the research aim and three associated objectives of this research study:

Aim:

To explore how an emotionally and geographically centred approach to visitor engagement can contribute to the delivery of the behaviour change agenda of the zoo.

Objective 1:

During the zoo visit: To identify and explore the emotional responses of visitors to their encounters with animals at the zoo.

Objective 2:

Beyond the boundary of the zoo visit: To identify and explore the influence of visitors' emotional responses to their encounters with animals at the zoo on their expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world.

Objective 3:

Beyond the boundary of the zoo visit: To explore ways in which the zoo can increase visitor engagement in pro-environmental behaviours in support of the conservation of endangered wildlife and the wider natural world.

The chapter is foregrounded with an overview of current approaches to visitor-based research studies at zoos and aquariums, which serves to highlight the need for an alternative methodological framework in order to address the aim and objectives of this study. My positionality within the research is described, which continued to evolve during the research not least due to my insider-outsider role at the WWCT. The specific methods of enquiry employed within

the study are then discussed, describing the key aspects of each method, alongside the rationale for choosing them to address the research objectives. Allied to this the ethical issues raised by the study and the process of securing ethical consent are then outlined, drawing out the key challenges and how these were addressed. The latter parts of the chapter describe in detail the process of data collection in the field, including the importance of reflexivity in amending aspects of this process during the fieldwork phase. Finally, the procedures employed to analyse and then write up the findings from the empirical data gathered during fieldwork are discussed. At the appropriate junctures within this chapter, consideration is also given to the potential limitations of the methodological approach, in terms of the overall framing of the research, and in relation to the practicalities of delivery in the field and subsequent data analysis.

4.2 Methodological approach

4.2.1 Current approaches to visitor-based research in zoos and aquariums

In order to contextualise and understand the rationale for the methodological approach of this study, it is first important to reflect on the ways in which research into visitor experiences has been undertaken in zoos and aquariums.

In terms of the overall approach to research, the research tradition within these wildlife attractions is firmly rooted within the natural sciences. This is typified by the WWCT, where the Field Conservation and Research Department has researchers with specialisms in animal behaviour, welfare and nutrition, alongside animal and plant ecology, all with an academic background in biological sciences. Such expertise has undoubtedly influenced the approach to visitor-based studies at the Trust and other zoos and aquariums. It has led to a methodological philosophy underpinning visitor research predominantly grounded in a quantitative, posivitistic approach, where statistical methods are utilised to interrogate data, and to provide a basis for interpreting the actions and responses of zoo visitors.

This quantitatively-based approach has underpinned a wide range of visitor-based studies that have sought to explore the impact of aspects of a visit to the zoo or aquarium. These cover a range of scales, from the individual zoo exhibit, to the whole zoo experience, and to research across a number of zoos and aquariums, both nationally and internationally. Areas of exploration within individual zoos have included the impact of: exhibit design (Nakamichi, 2007; Fernandez et al., 2009; Ross et al. 2012); animal training and oral interpretation (Anderson et al., 2003); and docents – education volunteers (Anderson et al., 2003; Mony and Heimlich, 2008), on visitor learning and attitudes towards animals. More widely the zoo community has sought to evaluate its collective impact. A study funded by the World Association of Zoos and Aquariums (WAZA) undertook a global evaluation of biodiversity literacy within its visiting public (Moss et al., 2017). In a similar vein the American Association of Zoos explored the impact of a visit to one of its accredited attractions on the public's understanding of wildlife conservation (Falk et al., 2007). Within these and other studies the use of surveys, psychometric scales, and multiple-choice questionnaires are common, with Likert scales employed frequently to record the nature of the visitor response at some point within the zoo visit. With regard to the fieldwork site for this study, visitor-based research is still very much in development, although studies undertaken, for example a characterisation and analysis of the typical visitor experience at Paignton Zoo (Gurney, 2016), have also been set within this same dominant posivitistic methodological framework.

As described in Chapter 3 in relation to behaviour change, zoos and aquariums have undertaken evaluations of community based social marketing campaigns. These evaluations are focused on ascertaining how many visitors undertook a specific, pre-determined behaviour as a result of the zoo visit. Other, psychologically-based studies, have sought to explore the nature of the emotional responses of visitors elicited during encounters with zoo animals through the use of psychometric measurement scales.

Collectively this range of visitor-based research studies is indicative of the dominance and popularity of this quantitatively-based methodological framing of research practice within the zoo and aquarium community. This approach has

been shaped largely by the predominance of natural scientists within the zoo research community. In addition, it is also reflective of, and perhaps reinforced by, the academic backgrounds of scholars from other disciplines, notably psychology and tourism studies, who have undertaken research projects in collaboration with zoos and aquariums. Specifically, with regard to the research focused on behaviour change, this approach also follows the paradigm of the psychologically-framed approach to pro-environmental behaviour within neo-liberal governance discussed in chapters 2 and 3.

4.2.2 An alternative methodological perspective

The preceding chapters make the case for an emotionally-centred geographical approach to visitor-based behaviour change studies at the zoo, which reframes the current approach to behaviour change both conceptually and methodologically. Specifically, this study aims to explore the influence of the emotional responses of visitors to human-animal encounters at the zoo with regard to their expressed feelings towards, and pro-environmental behaviours in support of the conservation of endangered wildlife and the wider natural world. Given the overall framing of the research study and its specific aim, it was necessary to utilise an alternative perspective to the dominant methodological paradigm employed in visitor-based studies at the zoo, as discussed in more detail below.

4.2.2.1 Rationale for a qualitatively-based approach to the research study

This section provides the rationale for choosing a qualitatively-based approach to the current research study. It does so through contrasting three key elements of research methodology, namely: (i) its position in relation to the role of theory; (ii) epistemological position; and (iii) ontological position. These are considered in relation to quantitative and qualitative approaches.

Firstly, quantitatively-based research has a deductive approach to the relationship between theory and research (Bryman, 2016), where research sets out to test a hypothesis. This is at odds with the study's research aim, which sought to open out exploration of the behaviour change agenda at the zoo i.e. it

reflects the inductive approach of qualitatively-based research, where theory is generated through the research process (ibid). Secondly the posivitist epistemological position of quantitative research drives an approach which seeks to measure and quantify specific objects of study (ibid). In contrast, the interpretivist epistemology of the qualitative approach focuses on understanding the social world through exploring how this world is interpreted by its participants (ibid). The latter is much better equipped to meet the aim and objectives of this research study, through a detailed exploration of the individual experiences of visitors at the zoo. Finally, the ontological position of quantitative research frames social reality from an objectivist perspective: as a single, objective truth, separate from those involved in its construction (ibid). However, qualitative research takes a constructivist approach, such that aspects of the social world are viewed as outcomes of interactions between individuals (ibid). In the case of this study, the interactions relate to visitor-animal encounters at Paignton Zoo, and the multiple interpretations of reality and their influence in relation to visitors' expressed feelings and pro-environmental behaviours in support of wildlife and the wider natural world.

Thus, a qualitatively-based methodological approach, as opposed to the quantitative approach predominant in visitor-based zoo studies, was identified as appropriate for this research study. Utilising such a methodological approach would enable visitors to provide personal, in situ accounts of their experiences in their own words, rather than being constrained by pre-determined categories or psychometric measurement scales. In addition, the reasons for, and influence of, these experiences could also be explored, enabling an in-depth understanding of the nature and influence of visitors' encounters with animals at the zoo. It was recognised that this approach could be quite challenging for the zoo community to embrace, given their familiarity and focus on a quantitative research tradition (see also Section 4.6.1). However, it was hoped that, in addition to addressing the specific aim and objectives, the study could also highlight the value of a qualitatively-based methodological approach within zoo-based visitor studies.

As identified above, this methodological approach focuses on capturing the emotions i.e. expressed feelings of participants in relation to how they feel during and after their encounters with animals at the zoo. However, in Chapter 5 I also attend to the material dimensions of the zoo and specifically those of the sites of encounter with animals. Therefore, whilst the methodology is focused on what the research participants say, I acknowledge that there are also material dimensions which can serve to shape and inform the expressed feelings, which I also pay attention to in my analysis. Drawing on Anderson (2019), this can be conceptualised as a relational configuration between different representations, where the spoken word, the material dimensions of the space and the embodied presence of the animals are entangled. Given this relationality between different representations, it is not possible to separate them out, and instead they can be understood as 'representations-in-relation' (ibid p.1122).

4.3 Fieldwork site

As described in Chapter 1, the fieldwork was undertaken at Paignton Zoo, Devon, one of three sites owned and managed by the WWCT. The WWCT seeks to deliver its objectives for visitor engagement across all three sites, utilising its animal collections in tandem with a variety of talks and activities, and through products available in its retail and catering outlets. The three sites vary significantly in their physical size and make-up, the scale of the animal collections, and in annual visitor numbers. Detailed consideration was given to the characteristics of each site described above in order to decide which would be included in the research study. The comparative size of Paignton Zoo in relation to: the scale of the site and the diversity of species exhibited; the average length of visit; and the visitor numbers (61% of the visitors across all three sites: approximately 463,250 visitors per annum during the three year period 2014-2017 – I Warren 2018, personal communication, 8th February), was felt to be very advantageous in terms of locating the research. The site afforded plenty of opportunity to explore the experiences of research participants with a wide range of animals and to leave time for participants to spend more time at the zoo beyond the interview if they wished. In addition, the large number of visitors provided a substantial potential pool from which to recruit participants.

Finally, on a practical level, it was most convenient for me to access this site from home and the university. A schematic map of Paignton Zoo is included at Appendix 1 to provide an overview of the animal exhibits and visitor infrastructure.

4.4 Researcher positionality

Work, by feminist geographers in particular, has explored the crucial nature of researcher positionality in shaping the knowledge created through the research process (Rose, 1997). Turning away from the narrative of the supposedly rational, objective and dispassionate researcher, this perspective accepts that "…research is an embodied activity that draws in our whole physical person, along with all its inescapable identities" (Crang and Cook, 2006 p.9). Therefore, it was essential to understand my positionality within this research study, as it provided a rich resource for me to draw upon to facilitate deeper understanding of the research topic (ibid). My positionality could be considered in relation to four main aspects: (i) as a nature conservation professional; (ii) as a zoo visitor; (iii) as an 'insider-outsider' at the WWCT, with a dual role of PhD Researcher and part-time WWCT Advocacy Officer; and (iv) through my experiences on a research trip to North American wildlife attractions in 2017. These different aspects are described below and, in combination, highlight the wealth of experience, both past and emerging through the course of the research, upon which I was able to draw.

4.4.1 Professional career in nature conservation

I came to this research following 25 years of experience as a practitioner working in the fields of nature conservation, environmental sustainability and community development. The springboard for this career was academic training as a physical geographer and environmental scientist. My most recent post before starting my PhD was as Director of Development and Policy at Devon Wildlife Trust. All my practitioner roles have been situated at the challenging but exciting interface of people and nature: everything from working with individuals and communities to safeguard and enhance the wildlife and green spaces on their doorstep, to working with farmers to rebuild habitats and

ecosystems. There has been a systematic thread throughout the many strands and forms of this work: exploring and endeavoring to make sense of how people experience, value and act in relation to the natural world.

4.4.2 Experience of zoos as a visitor

Up until my PhD, my experience of zoos was solely as a visitor. As a child growing up in suburban London during the 1970s, I enjoyed regular trips to London Zoo at a time when rides on the elephant and in a cart drawn by llamas were a normal part of the zoo visitor experience. My awareness of the conservation work of zoos developed in my early teenage years, thanks to the books of Gerald Durrell and a trip to the zoo he founded on Jersey. During my adult life I have been a member of zoos at various cities (Edinburgh and Bristol in the UK, and Wellington in New Zealand), where I was living and working at the time. I always enjoyed visiting these zoos and the opportunities they provided to watch and spend time with a wide range of animals.

4.4.3 Insider-outsider role

As part of this research collaboration with the WWCT, I had a part-time role (nominally one day a week) as the Trust's Conservation Advocacy Officer, based in the Field Conservation and Research Team at Paignton Zoo. This role primarily involved working with other members of the Trust's Advocacy Working Group to help develop and implement the Trust's conservation advocacy aims in relation to behaviour change. In addition, it entailed the co-supervision of undergraduate placement students and MSc students undertaking visitor-based research at the zoo, and lecturing to MSc students in the arenas of human behaviour change, zoo education and conservation advocacy. Whilst being embedded in the Trust in this way was not a formal part of my methodology, this 'insider-outsider' role proved extremely helpful in understanding more about the management and operation of the Trust's three sites, and of the work of zoos more generally. I also benefitted from the support of colleagues in the Guest Services and Marketing departments in recruiting visitors for my research.

However, this dual role was not without challenge. From the outset of the study, I was mindful of keeping some level of separation in my own mind between myself and the WWCT, as I sensed that colleagues at the Trust viewed me as 'one of them' and as a member of the zoo community. I quickly became aware of the persistent undercurrent of concern within the Trust and wider zoo community regarding the legitimacy of zoos in the eyes of the wider world. I felt that it was presumed and/or expected that I was 'pro' zoo and that to some extent my research was helping to prove the value of the zoo in engaging visitors in pro-wildlife activities. I initially found this quite an awkward and challenging position, as this was not the way that the research had been framed by the University of Exeter and the WWCT. In addition, I was starting to have a very different engagement with the zoo to my previous visitor-based one. Visiting the zoo at least once a week, and regularly seeing the same animals in the same enclosures, I began to feel less comfortable about the keeping of these animals in captivity and confinement. This was further exacerbated by engaging for the first time with literature which was critical of zoos and questioning of their validity in the modern world. Although I was learning a great detail about the work of the Trust and other zoos in endangered wildlife conservation and education, I also witnessed the continued existence of the colonial antecedents of the zoo, discussed in Chapter 3, in the form of a 'culture of collection'. This drives the imperative to retain, attain or display a certain species as part of a zoological collection, rather than in relation to the modern-day paradigm of the zoo as a centre for conservation. Allied to this I was at times frustrated by what I perceived to be a lack of commitment (from some quarters) to upscaling and investing more substantially in visitor engagement, beyond the bounds of providing the basic facilities to support a 'fun day out' at the zoo.

As a result of this, during the first six months of my research, I fruitlessly tried to resolve in my own mind the question of the legitimacy of zoos. However, it became apparent to me that there was no easy answer, and that it was far too simplistic to try and conceptualise zoos in terms of good or bad, right or wrong. Instead I found exploring the role of the zoo to be both challenging and fascinating, and in essence became comfortable with the feelings of ethical discomfort I sometimes experienced working in the zoo environment. Working

with a number of individuals at the zoo, whose energy and commitment to the development and delivery of a more ambitious approach to behaviour change at the zoo was also both reassuring and uplifting.

In Chapter 8 I will revisit my positionality in relation to my insider-outsider role, specifically in relation to how my ethical discomfort also manifest in relation to the findings from my thesis.

4.4.4 Visits to North American wildlife attractions

During the course of my research I had the opportunity to visit two North American wildlife attractions, which included conversations with both staff and volunteers at each site. These visits were extremely helpful in gaining further knowledge and insight into approaches at different wildlife attractions to visitor engagement, both in terms of raising awareness about issues of wildlife conservation, and involving visitors in pro-environmental behaviours. Section 4.5.4 provides more details of these visits.

4.5 Methods of enquiry

4.5.1 Framework for enquiry – an ethnographic approach

Section 4.2 outlined the rationale for utilising a qualitative approach to frame this study. Having established this framework, it was necessary to consider the methods of enquiry which would elicit empirical data that would enable the research aim and objectives to be addressed. Overall, an ethnographic approach was identified as being well suited. The term ethnographic is used, as outlined by Crang and Cook (2007), to be an approach that encompasses a range of techniques, including participant observation, interviewing, focus groups, and video/photographic work. This provides the researcher with a great deal of flexibility in their approach, and an ability to combine different methods to explore a research topic in depth and in a variety of ways. Given the complexities and challenges of researching human behaviour change and human emotions both conceptually and methodologically (as highlighted in Chapters 2 and 3), there was a need within this research study to engage with what Crang and Cook (2007) describe as the ‘messiness’ of the social world.

They go on to highlight that the ability of ethnography to explore and grapple with such messiness is potentially the most valuable contribution this type of research can make.

Buller (2015) highlights that both observational and participatory ethnographic approaches have been widely utilised in the exploration of human-animal relations. Whilst a central challenge of animal geography is to see human-animal relations beyond just the human perspective, to try and give voice to animals (Buller, 2015), I acknowledged that the approach to this study focused on the human in the human-animal encounters at the zoo. However, there was a strong intention that exploring the emotional dimension of these experiences would help to provide a deeper sense of the agency of zoo animals in relation to securing positive outcomes for the conservation of endangered wildlife and the wider natural world.

Despite the general lack of qualitatively based zoo studies, sociologist David Grazian's 2015 ethnographic account of his firsthand experiences volunteering at two urban zoos in North America are indicative of the value of the ethnographic approach in exploring the world of the zoo in depth. Through an ethnographic approach comprising go-along and semi-structured interviews, and the compilation of my own research diary, it was anticipated that this study would elicit rich data regarding the nature and influence of the emotional aspects of human encounters with animals at the zoo.

4.5.1.1 Challenges of engaging children and young people

Alongside the challenge of exploring human emotions and behaviour change, it was also important to consider those posed by attempting to engage children and young people (a key audience for the zoo community), within the study. During 2016-17, the number of children under 16 visiting Paignton Zoo was approximately 167,000 individuals, which represented approximately 40% of the total number of visitors to the zoo during that year (I Warren 2018, personal communication, 8th February). Therefore, it was crucial to give consideration to methods of enquiry which would elicit their perspectives of the zoo experience. Historically, conventional research methodologies have tended to exclude

children and young people from the research process (Shaw et al., 2011). However, increasing shifts both theoretically and methodologically within social research have led to the recognition of children and young people as 'social actors', with their own unique insights and perspectives to offer, and with the right to be engaged in research about matters of interest and relevance to them (ibid).

In seeking to engage children and young people, it is important to consider both the research environment and research methods. This is to ensure that those adopted minimise barriers to participation and do not, through natural power imbalances between adult researcher and child participant, unduly influence the nature of the data collected (ibid). Various steps can be taken to minimise the impact of this, including: creating a relaxed atmosphere; ensuring that research questions are not seen as a test; dressing informally; and avoiding a formal seating or room layout (ibid). This is of particular importance for primary school children, where very formal or structured methods are less appropriate (ibid). In light of these issues, an ethnographic approach, with part of the researcher-visitor engagement taking place at the zoo, was felt to be an appropriate framework for enquiry.

Working with children and young people also raises particular ethical issues and challenges, which are addressed in Section 4.7 of this chapter.

4.5.2 Go-along interviews

This study was centered on capturing and exploring emotions. As discussed in Chapter 3, after Anderson (2006), emotions are understood to be one of the three dimensions of affect – expressed feelings that are socially constructed through language and other representational practices. Talk-based, qualititative approaches have been heavily utilised within geographical enquiry (Anderson and Harrison, 2016) to explore the emotional dimensions of people's lived experiences. Whilst recognising that this focus on emotions precluded an exploration of all aspects of the affective dimension of the zoo environment, eliciting verbal responses from the visitors was felt to be the most effective way of addressing the research objectives. These interviews were comprised of two

elements, firstly a go-along interview at Paignton Zoo, and secondly a post-visit semi-structured interview held up to three weeks after the zoo visit.

The go-along is a mobile methodology which has emerged as an approach to explore and secure understanding of the dynamic people-place relationship (Sheller and Urry, 2006), and to understand the diversity of meanings that people attach to landscapes (Begeron et al., 2014). It consists of an on-site interview, where the researcher accompanies the participant, and which can be done on foot (walk-along) by bike or car (ride-along) (Bergeron et al., 2014). As a hybrid of a sedentary interview and participant observation, its uniqueness lies in enabling the researcher to ask questions, listen, and observe (Kusenbach, 2003). As the researcher is with the participant during their interaction with a particular place, go-alongs "…intentionally aim at capturing the stream of perceptions, emotions and interpretations that informants usually keep to themselves." (Kusenbach, 2003 p.464), and make it easier for participants to verbalise their feelings and attitudes, compared with being in the home (Hitchings and Jones, 2004).

Contextually, go-alongs have been used primarily in explorations of urban neighbourhoods (Kusenbach, 2003; Brown and Durrheim 2009; Evans and Jones, 2011). Kusenbach (2003) distinguishes between what are termed 'natural' and 'contrived' or 'experimental' go-alongs. The former occurs in a setting familiar to participants, necessary for the purposes of capturing authentic interactions and responses between the participant and setting. In contrast, the latter relate to go-alongs in unfamiliar territory or where participants take part in activities which are not part of a normal routine. Geographers have utilised the go-along to positive effect in settings beyond the local neighbourhood, and those more similar in character to the zoo. In a study of visitors' encounters with plants within a botanical garden and in private gardens, Hitchings and Jones (2004) found go-alongs to be a practical way to research the intimacies of human-nonhuman animal relationships, with the interview context providing "…an opportunity to allow plants more power to visibly contest or prompt what was being said about them" (p.9). In addition, comparing the use of the go-

along with a sedentary interview, they found that the former facilitated more informal and interesting interactions.

Clearly a visit to the zoo is not an everyday occurrence, and go-alongs in this environment could be conceived of as ‘experimental’. However, it was anticipated that some research participants would be members of the WWCT, and therefore potentially frequent visitors, familiar with the zoo. Other participants may have previously visited other zoos. In addition, and as a familiar cultural practice, at least some elements of a zoo visit are well understood by the general public. In this way the zoo perhaps presents a hybrid environment, familiar on some level to most, and very familiar to regular visitors. Such distinction between different contexts, whilst understandably very relevant to explorations of people-place relationships in local neighbourhoods, was deemed to be less relevant to this research study.

Kusenbach (2003) identifies different ways of recording a go-along interview that are open to researchers: audio-recording; photographs; and taking notes, with emphasis on the importance of expanding records or mental notes into descriptive fieldnotes as soon as possible after completion of the go-along. As I had not previously undertaken go-alongs, I discussed options for recording with research colleagues familiar with this technique. I concluded that audio-recording would be most suitable, enabling me to keep full attention on the conversation without distracting either myself or the participants by writing notes.

With its capacity to explore participants’ lived experience in an informal, unstructured and experiential environment, the go-along was well suited as a methodology for this study, specifically in addressing Objective 1 of the study: To identify and explore the emotional responses of visitors to their encounters with animals at the zoo. By undertaking go-alongs during a visit to the zoo, where the expectation is of a fun day out with family and/or friends, it was anticipated that the issues raised in Section 4.5.1.2 regarding the engagement of children and young people could be addressed, and also aid the ease of engagement of adult participants.

4.5.2.1 Go-along interview schedule

It was recognised that accompanying participants at the zoo would entail moving through a multi-sensory environment, with many opportunities for participants to be attracted and distracted by the animals they encountered. Such a constantly changing environment would make a structured interview schedule unfeasible (Brown and Durrheim, 2009) and therefore, a short, semi-structured interview schedule was compiled (Appendix 2) to guide the go-along (see Section 4.5.3 for more detail regarding semi-structured interviews). This schedule focused on asking participants how they felt seeing the animals they encountered as they walked around the zoo, and the reasons for these responses. I asked participants how they "felt", rather than what their emotional responses were, as this was a more colloquial way to ask such a question. However, in the context of this research study, their responses were understood to be their expressed feelings i.e. emotions (this was also the case for the post-visit interview schedule, discussed in Section 4.5.3.1). In addition, the schedule also asked participants about previous experiences and memories of animal encounters at Paignton Zoo and/or other zoos. It was anticipated that these questions would provide a good 'ice-breaker' in the early stages of the go-along.

4.5.2.2 Photographic materials

Given the visual nature of the zoo visit, consideration was given to engaging with visual research methods, in particular photovoice, which asks participants to take photographs of facets of their lives that have meaning for them, within the framework of a specific objective (Plane and Klodawsky, 2013). These photographs are then used as a basis for photo-elicitation in a follow-up interview, to explore the significance and meaning of the images recorded (Rose, 2016). Whilst it is usual for the research participant to take the photographs, they can also be taken by the researcher (Rose, 2016).

As I was utilising the firsthand, in situ encounters as the basis for eliciting responses from research participants, the use of photovoice was discounted. However, I recognised that it could be helpful to have photographs from the zoo

visit to help prompt and recall the experience (Rose, 2016) during the post zoo visit interview. I also anticipated that a number of the participants might take photographs during the visit, which could also be used in a similar way in this second interview. Therefore, a small photographic element was included in the go-along whereby, at the outset of the zoo visit, I asked visitors to point out things during the visit that were important to them, so that I could photograph these for reflection in the post-visit interview. However, as will be discussed in section 4.8.1.5, this approach proved impractical in the field. Instead I took a number of photographs of the animals encountered during the go-alongs, and of the interactions of visitors with the animals. Photographs of visitor interactions with information and interpretive resources associated with the animal exhibits were also taken.

Drawing on Rose (2003, 2016), I fully appreciate that engaging in the visual in this way, and the subsequent use of these 'visualities' within my empirical chapters, does not provide some neutral or absolute representation of the themes or issues under discussion. Such photographic images "…have their foci, their zooms, their highlights, their blinkers and blindnesses…" (Rose, 2003 p.213). Thus, these photographs are understood to only provide a partial and momentary representation, through my own lens, of human-animal encounters and other material elements of the space of the encounter at the zoo. In addition, I was very aware of the ethical dimensions of this endeavour, particularly in relation to the anonymity, confidentiality and consent of my research participants (Rose, 2016). The project information sheets (see Appendices 6 and 7) explicitly identify that during the go-alongs, photographs including participants would only be taken with their consent, and that if such images were to be included in any subsequent written materials, written consent would be obtained. This is also highlighted again in the consent for adults (Appendix 8). For all photographs which appear within the empirical chapters of this thesis, that include participants in an identifiable manner, written permission was obtained.

4.5.2.3 Other considerations: Global Positioning System (GPS) Mapping

Geographical enquiry using the go-along method generates more place-specific data compared with sedentary interviews (Evans and Jones, 2011). In view of this, a number of researchers advocate the use of GPS technology to map these data (Evans and Jones, 2011; Bergeron et al., 2014), to generate qualitative GPS data, which can be used to compile spatial transcripts (Bergeron et al., 2014). There has been criticism of go-alongs where such data are not collected, preventing a further layer of data interpretation from being developed (Evans and Jones, 2011).

Consideration was given to including GPS tracking of visitors during the go-alongs, which would enable recording of where they went, and how long they spent at each exhibit or non-animal element within the zoo. However, this was rejected on two main grounds. Firstly, a comprehensive GPS mapping exercise was undertaken at Paignton Zoo during 2015-16 as part of the Visitor Experience Research Project (Gurney, 2016). This involved a passive GPS tracking methodology to record visitors' movements (n=139) at the zoo, and resulted in the production of layered 'heatmaps', which represented both spatial and temporal density of visitors. Secondly, with a focus on exploring human-animal relationships, the collection of such data from the participants in this study would not have contributed in a meaningful way to addressing the research objective. It was also recognised that the audio-recording of the go-along would provide a detailed account of where the participants went and how long they stayed at an exhibit, so these data would be available at the analysis stage if required.

4.5.3 Post-visit semi-structured interviews

Whilst the zoo-based go-along was focused on capturing the emotional responses of participants to encounters with animals, a second discussion with participants was necessary in order to address the influence of these encounters on the participants, and specifically Objective 2 of the study – Beyond the boundary of the zoo: To identify and explore the influence of visitors' emotional responses to their encounters with animals at the zoo on

their expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world.

Semi-structured interviews set within a qualitative methodological framework enable specific topics or questions to be addressed, yet at the same time have the flexibility to adapt to how the interviewees frame and understand the issues under discussion (Crang and Cook, 2007; Bryman, 2016). In this way ethnographic data are co-created: constructed intersubjectively out of the conversation between researcher and researcher participants (Crang and Cook, 2007). Whilst this approach is primarily centred on verbal communication, generating audio data for subsequent transcription, it can also include an element of participant observation (Crang and Cook, 2007), where interviews are conducted face to face. Given the nature of this interview technique, semi-structured interviews were identified as the most appropriate way to explore Objective 2.

Semi-structured interviews were used with all visitor units up to three weeks after the zoo visit, when the visit was still fresh in the memory of the group members. These interviews took place at a time and location convenient to the participants. At the outset of the study a geographical limit for participants to live within two hours' drive from Paignton Zoo was stipulated, to ensure that these interviews could be carried out face to face. Although this restriction was lifted in phase three of the fieldwork (see Section 4.8.3.1), only one interview was conducted by telephone. These interviews were designed to last up to approximately one hour in length.

4.5.3.1 Post-visit Interview schedule

An interview schedule was developed (Appendix 3) and piloted (Section 4.8.1). The schedule was comprised of three distinct parts:

(i) Part one was a list of questions regarding sociodemographic aspects, alongside information regarding membership of other zoos or environmental organisations, and pet ownership. This was to build up a

'face-sheet' (Bryman, 2016) of information for each participant, to help contextualise their answers.

(ii) Part two focused on participants' engagement and relationships with animals, wildlife and wider nature through the course of their life. This was also designed to help contextualise answers, to gain a richer understanding of individual human-animal relationships, and the role of the zoo within this.

(iii) Part three, the final section, drew on the go-along interview at the zoo, and was explicitly directed at addressing Objective 2 of the study. Participants were asked to reflect on the influence of their emotional responses to the animals at the zoo in relation to their expressed feelings towards and pro-environmental behaviours in support of endangered species and the wider natural world. Asking about both endangered species and the wider natural world was to enable exploration of the extent to which the influence of the zoo visit may extend beyond the species encountered at the zoo. As discussed in Chapter 3, the main mechanism for zoos to engage with its visitors in issues of wildlife conservation is through the use of 'ambassador' animals at the zoo, which serve to act as proxies both for a wider range of species, but also the habitats in which all these species reside in the wild. Therefore, it was possible to explore the extent to which the influence of the zoo experience might extend beyond animals encountered during the visit.

As appropriate, a compilation of photographs which I had taken during the zoo visit was used to help introduce part three of the schedule, to help remind participants about their zoo visit, and the animals they encountered.

Whilst this interview schedule was designed to be used with all research participants, it was identified that it would also be informed by the go-along interviews carried out during the zoo visit. In particular it would enable issues raised at the zoo, but perhaps not fully explored at the time, to be discussed further. Guidance on both the development of the schedule and the practicalities of carrying out semi-structured interviews in the field was gained from reference to a variety of sources, notably Crang and Cook (2007), Bryman

(2016), through discussion with my supervisory team, and through discussion with more experienced field researchers.

As with the decision to use go-alongs, specific consideration was given to the use of this method with children and young people. It was anticipated that by providing an informal setting for the interview, chosen by an adult family member, and through having already established a familiarity and rapport with participants during the zoo visit, would ease and encourage the engagement of children and young people. It was recognised that the wording of the interview schedule might need to be adapted on a case-by-case basis to ensure that all participants understood and were able to actively engage in discussions (Bryman, 2012).

4.5.4 Visits to wildlife attractions in North America

During the course of my fieldwork I had the opportunity to visit two wildlife attractions in North America, both in California: San Diego Zoo in San Diego, and Monterey Bay Aquarium in Monterey. Both of these organisations have carried out visitor-based research in relation to visitor engagement in environmental education and behaviour change. These trips were not originally planned as part of my fieldwork. However, in June 2017 I presented a paper at the Emotional Geographies conference, at California State University, Los Angeles. Given the proximity of both of these wildlife attractions to Los Angeles, this appeared to be a good opportunity to experience firsthand their approaches to visitor engagement in wildlife conservation, which could potentially further aid and enrich my reflections on my fieldwork and research aim.

The visits to both these attractions comprised two elements (i) one to two days spent visiting each attraction, essentially as a visitor: exploring the exhibits and encountering a range of animals; reading information/interpretation boards; attending visitor talks; talking to volunteers at some exhibits; and participating in a visitor experience (Monterey Bay Aquarium only); and (ii) meeting with senior managers involved in visitor education and engagement to discuss their approaches to, and the challenges of, visitor engagement in behaviour change in support of wildlife conservation (in both cases I had set up these meetings in

advance from the UK). At each attraction I took fieldnotes and photographs to provide another source of data to draw on for my empirical chapters.

4.5.5 Research and fieldwork diaries

Given the importance of ongoing reflexivity throughout the research process (Rose, 1997; Crang and Cook, 2007), I kept a research diary throughout the research study. This was not a formal part of the research methodology in the sense of creating empirical data that would be analysed in a systematic way. However, it was a valuable repository for, and tool for making sense of, my thoughts, feelings and experiences in response to a wide variety of events, activities and occurrences, from the mundane and every day, to the more exceptional, including, but not limited to:

- time spent at the WWCT: undertaking my Advocacy Officer role; attending presentations, departmental meetings; and small group and one-to-one formal and informal discussions with colleagues;
- engagement with the wider zoo community: attending meetings and undertaking visits to other zoos and aquariums, both in the UK and North America;
- particular events within the zoo community: issues of escaping animals; animal culls; zoo keeper deaths; and zoo licensing procedures; and
- reflections on my return to academia and engagement in the PhD process.

In addition, specifically in relation to my fieldwork, I created a specific template to capture my reflections of each interview, alongside other aspects of the interview experience (Section 4.8.1.2).

Whilst such reflexivity was first and foremost of benefit to me and my research study, I was also aware of the importance of the process for the wider research community (Birch and Miller, 2002). Given the limited engagement with qualitatively framed research within the zoo, and the novel nature of the go-along method of enquiry, it was important to be open and honest about the

implementation of this approach, so that future researchers and the zoo community could learn from my experiences.

4.5.6 Research participants

4.5.6.1 Sampling

The aim of this research, set within a qualitative methodological framing, meant that the study was not seeking to secure a statistically robust number of participants, which could provide a representative, generalisable sample. Therefore, a theoretical approach to sampling (Crang and Cook, 2007) was taken to participant engagement in the study. This meant that the focus was on gaining access to individuals and/or groups of people who were concerned or involved in some measure in the research questions (ibid), in this case 'units' of zoo visitors (the term unit was taken to describe an individual, couple or larger group of family or friends visiting the zoo together).

Within this approach, the aim was to secure theoretical saturation (Crang and Cook, 2007), where the types of responses to my questions would become both similar and familiar, both during the go-along and post-zoo visit interviews. At the outset it was not possible to predict an exact number of visitor units which would enable theoretical saturation to be reached. In addition, as a novel methodological approach at the zoo, the likely levels of response to a request for research participants from the visiting public was unknown at the start. In view of these aspects, it was agreed with my supervisory team that the number of visitor units recruited to the study would be reviewed on an ongoing basis.

4.5.6.2 Participant recruitment

The advice of the Paignton Zoo Marketing Department was sought in order to understand the different mechanisms employed by the zoo to communicate with its audiences. This audience is diverse, including not only those visiting the zoo, but also local media, corporate sponsors, schools and local communities. As this study was focused on those visiting the zoo with family and/or friends, I was most interested in how the zoo communicated with this particular audience.

These visitors can be split into two groups: (i) visitors to the zoo who visit occasionally or as a one-off experience; and (ii) annual pass holders, akin to members of the zoo, who pay an annual fee which give them unlimited access to all three of the WWCT's sites. At Paignton Zoo they utilise a variety of mechanisms to reach these two types of zoo visitors including Facebook (approximately 50,000 followers) and Twitter (approximately 14,400 followers). They also use two online publications, Zoo News and ENews (distributed to 40,000 people), received by the annual pass holders (20,000 people), animal adopters, and others who have supported the zoo in some way (P Knowling 2017, personal communication, 20th January).

As identified in Section 4.2.3, this methodological approach to engaging with visitors to the zoo had not previously been tried at Paignton Zoo, or to the researcher's knowledge, any other zoo. Therefore, the likely level of response to a request for research participants was not known. To maximise the potential success of recruitment I decided to advertise the research widely, using all the available mechanisms described above.

A short advertisement (Appendix 4) was produced in the same design style as the information sheets and consent forms (see Section 4.7), for use on Facebook and the online publications. A shorter version of this text was produced for Twitter. In addition, a web page with URL was created with the help of the zoo's Marketing Department (Figure 4.1). This URL was embedded in each advertising medium as a way to signpost prospective participants to further details.

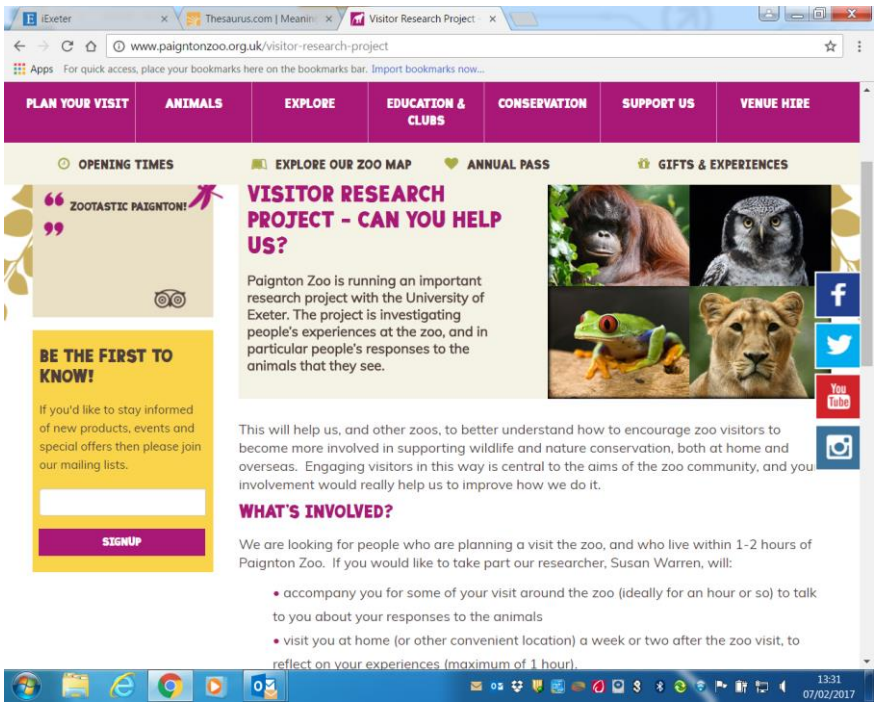


Figure 4.1 Web-based approach to participant recruitment - screenshot from Paignton Zoo Visitor Research web page.

The only specific stipulation made in the initial advertisements was that visitors lived within one to two hours' drive of Paignton Zoo, so that it I would be practical for me to travel to meet with the participants face to face for the post visit interview (although, as described in Section 4.8.3.1 this stipulation was subsequently removed for the final phase of participant recruitment, to further widen the catchment area for potential participants). Sections 4.8.2.1 and 4.8.3.1 provide more details on how this approach to participant recruitment was utilised and modified to reach a large audience of potential research participants. Figure 4.2 outlines the process by which visitors were engaged in, and participated in, this research study.

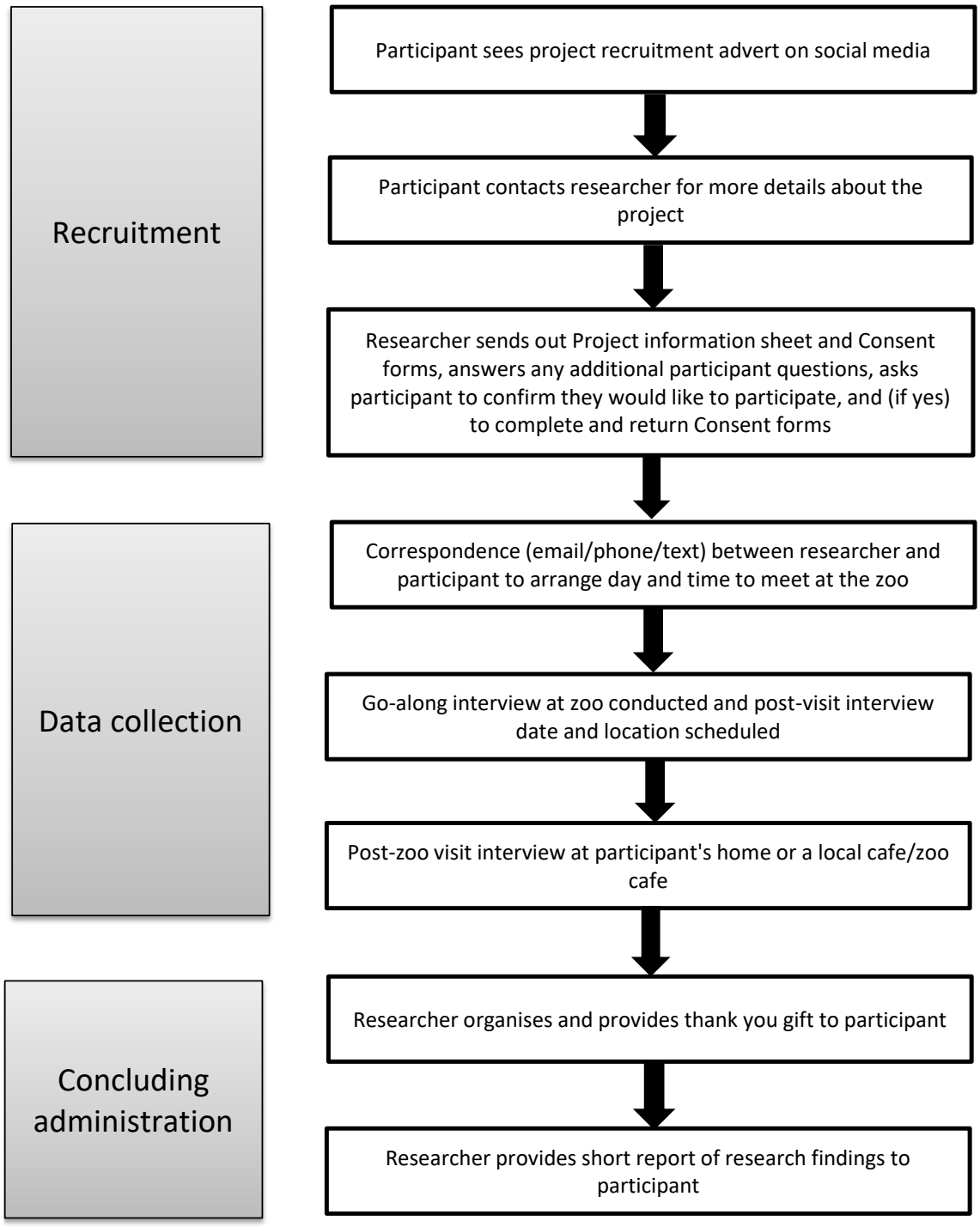


Figure 4.2 Process of participant engagement in research study.

4.5.6.3 Incentivising participant engagement

As participants would be asked to give a significant amount of their time to the study, it was decided to offer an incentive as a thank you gift. It was discussed and agreed with the WWCT Guest Services Team that participants would be offered one of the following:

- Free tickets to the zoo (valid for a year) for each visitor unit participating in the study
- A standard Animal Adoption Pack
- A half price Animal Experience

This incentive was highlighted in the Project Information Sheets for Zoo Visitors, and the options were discussed at the end of the post zoo visit interview. In liaison with the WWCT staff, I then arranged for the appropriate thank you gift to be sent to participants.

4.6 Methodological limitations

Whilst this section has identified the importance of engaging a qualitatively-based research methodology and the appropriateness of specific methods of enquiry within this, it is important to recognise the potential limitations of the approach to this research study. These will be considered both in this section and in Chapter 8, to distinguish between limitations that could be identified at the outset of the study, and those which became apparent during the course of the fieldwork.

4.6.1 Recognition of alternative research practise from within the zoo community

As identified in Section 4.2, given the predominance of quantitatively-based research within the zoo and aquarium community, the qualitative methodology framing of this study, with its associated epistemology and ontology, is unfamiliar or unknown to such research practitioners. Therefore, there was an awareness that the knowledge generated through this study could be resisted by this community, as it may be felt to be less reliable or valid in comparison with their own research practises.

In seeking to address this potential resistance I ensured that I provided opportunities for both the WWCT staff and the wider zoo and aquarium community to learn more about the qualitative research process. During the course of my research I gave a number of presentations to at the WWCT. At a governance and management level this this included the Board's Advocacy sub-committee and the Trust's senior management team. At a departmental level I also presented to staff in: Field Conservation and Research; Education; Marketing; and Guest Services. Finally, I gave two presentations, one during my fieldwork and one during the process of writing up this thesis, to all staff at each of the Trust's three sites. Whilst varying in content as a reflection of my point within the research process, within all these presentations I:

- discussed the value and importance of a qualitative approach in addressing the behaviour change agenda at the zoo;
- described my qualitative methodological approach; and
- identified the potential for other qualitatively-based studies to complement future visitor-based studies at the zoo.

In addition, to reach beyond the boundaries of the WWCT, I presented a paper on my research to the British and Irish Association of Zoos and Aquariums (BIAZA) annual research conference in 2018, and wrote an article for BIAZA News, the association's newsletter (Warren, 2018). As an organisation with over 1,000 members, BIAZA was an excellent means by which to reach across the wider zoo and aquarium community. Through this approach I hoped to raise awareness and understanding of the qualitative research process within the zoo and aquarium community, and through this help to facilitate engagement with the outcomes of this study. In addition, through my own research practise, I hoped to demonstrate a thorough, methodical and robust approach, to help this community to appreciate the rigour and trustworthiness of the qualitative approach.

The issue of the legitimacy of this approach to research and knowledge generated can also be applied to the wider research and policy community engaged in the behaviour change agenda, where a psychologically-based

approach predominates. Bringing new approaches and forms of knowledge into such an arena can be daunting and challenging. This can be framed as a potential limitation, both with this and the zoo and aquarium community. However, this study also represents an excellent opportunity to open up debate regarding what is possible, desirable and measurable with regard to pro-environmental behaviours, both at the zoo and within other social contexts.

4.6.2 Focus on the emotional aspect of the visitor experience

Chapter 3 identified some of the criticism of emotional geography in that it produces only superficial narratives of lived experience due to a focus on expressed accounts (Anderson and Harrison, 2016). The use of go-along interviews and the informal staging of the post-visit interview helped to facilitate a rich expression of emotions. However, the process of capturing emotions in spoken word and then their transcribing into a textual format was not able to convey the full richness of the emotional expression of participants, in the form of facial expressions, body language and tone of voice. In addition, it is acknowledged that this approach did not enable all aspects of the affective dimension of the zoo experience to be captured.

Research shows the desire for recreational and entertaining experiences on a visit to the zoo (Grazian, 2015). A typical day out at Paignton Zoo involves encounters with a wide range of often charismatic, exotic animals, alongside opportunities for play, picnics, ice-cream and shopping. Comparing zoos with theatrical stages, Grazian (2015) describes how zoos carefully choreograph atmospheres of enjoyment, excitement and wonder to meet the desires and expectations of their visitors. Lorimer (2017), in coining the term ‘atmospheric engineering’, is critical of practices such as animal training and animal medication used to help deliver this particular atmosphere of the zoo experience.

Given this ‘stage-setting’ (Grazian, 2015), the very fact of being at the zoo, coupled with visitors’ expectations, generates a certain atmosphere which may have influenced how visitors respond to questions about their specific emotions

in relation to encounters with zoo animals. However, in order to most effectively address the aim and objectives of this study, the methods of enquiry precluded a specific exploration of these more affective elements of the zoo experience.

4.7 Ethics

Ethical considerations play a key part in the design, planning and delivery of research. This section focuses on the main ethical issues raised by this study, and how these were addressed in relation to securing ethical approval from the University of Exeter Geography Department's Ethics Committee. However, the consideration of ethical issues does not stop once such an approval is granted, and it was recognised that it would be necessary to stay alert to such issues once in the field and engaging with research participants (Farrimond, 2013).

A number of core ethical principles underlie research ethics, which serve to regulate the relationship between the researcher and research participant, and to protect the rights and interests of each of these participants. Whilst reading across different resources on research ethics highlights slight differences in these core principles, they generally cover the following: autonomy (respect of the individual); beneficence (do good); nonmaleficence (do no harm); integrity; and confidentiality (University of Exeter, Department of Geography, 2016).

At the outset of developing an ethics proposal for the research study, information was sought from the University of Exeter Geography Department's online Ethics resources to understand the requirements for an application to the Department's Ethics Committee. This was valuable in identifying the process for consideration of applications, in particular that this research study, as it would involve children and young people, would be considered through the 'Track B' route. This necessitated a more detailed application, which would also be scrutinised at a meeting of this Ethics Committee. Therefore, the development of the ethics application had to be done in a timely fashion to meet the deadline for the October 2016 Ethics Committee meeting, with a view to fieldwork commencing during the autumn of 2016.

It was not necessary to submit a separate ethics application to the WWCT, the research sponsor and host organisation for the fieldwork. The WWCT was already aware of and content with the research and planned methodology, as the Trust's Director of Research and Education was part of the researcher's supervisory team. The Trust was happy to proceed with the research on the basis of its approval by the Department of Geography's Ethics Committee.

4.7.1 Engagement with research participants

As the research involved engaging with members of the general public, the need for a DBS check (Disclosure and Barring Service) was explored. Advice was taken on this from the WWCT's Director of Human Resources and Finance, and from Dr Matt Finn at the University of Exeter, a member of the Geography Department's Ethics Committee, with expertise in child-based research. Given the nature of the proposed research methodology, where the children and young people involved would always be accompanied by an adult, a DBS check was not required.

It should be noted that at the time of compilation and submission of the ethics application the scope of the research study also extended to a series of planned interviews with zoo professionals regarding the emerging findings from the study. On further reflection this element was removed, as it was felt that this was primarily a research dissemination activity, which would be undertaken post-analysis of the empirical data. However, reference is made to interviews with zoo professionals in the ethics application at Appendix 5.

4.7.2 Engagement of children and young people

A key ethical consideration for the proposed research centred on the engagement of children and young people both during the go-alongs at Paignton Zoo and in the post-zoo visit interviews. As identified in section 4.5.1.1 the engagement of children and young people was important to the study. The ethics of engagement with this audience was guided by reference to the National Children's Bureau Research Centre (Shaw et al., 2011). In addition, an informal discussion was held with Dr Matt Finn. This research and discussion

informed the development of the project information sheets and consent forms, the content of which are described in the following sections.

4.7.3 Project information sheets

A number of references were used to inform the development of both the project information sheets and the associated consent forms, notably: Farrimond (2013); Bryman (2012); the University of Exeter, Department of Geography's Ethics web pages (2016); and the ESRC's online resource – The Research Ethics Guidebook (2016).

Two different versions of a project information sheet were developed, one for adults and young people and the other for older primary school aged children. These information sheets outlined what engaging in the research would mean for each participant, and were guided by a consideration of the ethical principles already highlighted. In summary, this meant that participants were: fully informed as to the nature of the research and their engagement in it; free to volunteer; free to opt out at any time without redress; and fully protected, with data treated confidentially and held securely and anonymously. The specific content of each information sheet can be seen in Appendices 6 and 7. Mindful of ensuring that the information was accessible to different audiences, a readability score (NIACE, 2009) was used to guide the content. The information sheet for adults and young people had a readability score of 8.5, in line with the recommended score of around 8 for written materials for the general public (NIACE, 2009). The information sheet for children had a readability score of 4.9. A readability score of around 6 is the approximate reading level on completion of primary school (NIACE, 2009). The information sheet for children highlighted at the start that it could be read by a parent/carer if required.

The design for the information sheet (and also consent forms and recruitment advert), was developed with support from the WWCT's Graphics Department. The use of animals and colour in all these documents was intended to further enhance the accessibility and informality of the information provided.

4.7.4 Consent forms

Two versions of a consent form were produced using the readability score (NIACE, 2009) as a guide. Each consent form provided a list of statements regarding the participant's understanding of the issues outlined in the project information sheet regarding their engagement in the research. There was a box beside each statement for participants to tick to indicate that they understood each aspect of this engagement.

In slight variation to the project information sheets, one consent form was developed for adults (Appendix 8), and a second for children and young people i.e. all young people under 18 years old (Appendix 9). For those aged under 18, it was necessary to seek written consent from their parent/carer. Whilst this written parent/care consent would normally be only for young people under 16 years of age, it was necessary to increase this age limit to under 18 years as the post-visit interview was likely to take place in their home environment (Shaw et al., 2011). The child or young person was able to either write their signature or put a mark in place of the signature to indicate their consent. In the case of younger primary school children, or for other children for whom their parent/carer did not feel that the written consent form was appropriate, a verbal consent script was developed (Appendix 10), in order to seek verbal consent at the start of the zoo visit. I was aware that the invitation to participate may be communicated to a child/young person via a gatekeeper i.e. parent or carer. Therefore, for visitor groups including children and young people, when they initially expressed their interest in participating in the research and/or before the start of the zoo visit, I briefed them on the importance of voluntary consent (ibid).

The intention was to carry out the go-along with the whole visit group, subject to consent (either written or verbal) being given by all members of the group. However, if a member(s) of the group did not wish to participate, I would not audio-record anything they said, take any notes in relation to their behaviours at the zoo, or take any photographs relating specifically to their experience and/or in which they would be included. If any of their conversation was inadvertently

recorded as part of discussions with the participating members of the group, this would not be transcribed or referred to in any way in the empirical data.

4.7.5 Risk assessment

A Risk Assessment template was completed. The main consideration within this assessment was lone working, visiting research participants for the post-zoo visit interview either in their own home or at a suitable local venue such as a café. In order to address this a lone worker procedure was developed, including a 'call-in' system to notify a named contact of safe arrival and departure from the interview location. This was signed off by the University of Exeter's College of Life and Environmental Science Health and Safety Officer, and submitted as part of the ethics application.

4.7.6 Geography Department Ethics Committee review of application

The ethics application for this research was accepted without any amendments. It was commended for its clarity and thoroughness, and was identified as very good practice in relation to child-related work. The project information sheets and consent forms now provide good practice case studies on the Department's online ethics pages.

4.8 Data collection

Data collection was undertaken at Paignton Zoo in three separate phases between November 2016 and September 2017: Phase 1 - pilot; Phase 2 – main data collection; and Phase 3 – enhanced focus on non-zoo member participants. Interviews (a go-along at the zoo and a post-zoo visit interview) were conducted with 14 visitor units, giving a total of 28 interviews. These visitor units comprised 41 individuals, made up of 26 adults (18 female; 8 male), 11 children and young people aged 3-15 years (8 female; 3 male) and four children under 3 years (1 female; 3 male). The zoo interviews were conducted during winter, spring and summer, providing a wide range of weather and crowd conditions. Table 4.1 provides a schedule of these interviews, and indicates the total number of visitors at the zoo during the day of each go-along interview. The following section describes recruitment and participant engagement in each

of the three phases of fieldwork. It also includes critical reflections at the end of Phase one and Phase two. This reflexivity enabled the amendment of the zoo and post zoo visit interview schedules at the end of the pilot phase, and a shift in the focus of the participant recruitment for Phase three.

Visitor Unit	Zoo visit interview date	Visitor numbers at Paignton Zoo on day of zoo interview	Post-zoo visit interview date
Phase 1 (pilot)			
VU1	4/11/2016	344	9/11/2016
VU2	13/11/2016	1,202	21/11/2016
VU3	3/12/2016	256	20/12/2016
Phase 2			
VU6	27/2/2107	305	27/2/2017
VU10	15/3/2017	980	15/3/2017
VU9	21/3/2017	915	27/3/2017
VU4	28/3/2017	747	28/3/2017
VU11	29/3/2017	542	29/3/2017
VU8	9/4/2017	2,749	14/5/2017
VU5	14/5/2017	2,380	23/5/2017
Phase 3			
VU12	9/8/2017	3,938	14/8/2017
VU13	15/8/2017	4,520	21/8/2017
VU14	15/8/2017	4,520	30/8/2017
VU15	29/8/2017	3,921	8/9/2017

Table 4.1 Schedule for zoo and post zoo visit participant interviews, November 2016 – September 2017.

Note: There was no Visitor Unit 7 as the participants withdrew from the study the day before the zoo visit due to family illness.

4.8.1 Phase 1 Fieldwork, Pilot Phase: November and December 2016

4.8.1.1 Participant recruitment

A pilot phase was undertaken during November and December 2016, to test-out the practicalities of undertaking go-along interviews at the zoo, and the appropriateness of the draft interview schedules in eliciting participant responses. To help gain constructive feedback, I decided to recruit participants

from academic and non-academic roles within the University of Exeter Medical School, where my partner works. An email was sent from me, via my partner, to invite members of the Medical School to join the study. This email outlined the purpose of my research, invited people to participate in the pilot interviews, and asked that they provide feedback on their experiences of engaging in the process. As this was a request for participants to support the pilot research phase, I felt it was appropriate to provide these participants with free entry to the zoo in addition to the thank you gift for participating. The WWCT agreed to this.

There were three positive responses to this email. Each respondent was sent a project information sheet and consent forms. On agreement to participate, a time and date was arranged to meet each visitor unit at the zoo. Demographic information about each of these three visitor units is shown in Table 4.2.

Visitor unit number	**Age & gender**	**Ethnicity**	**Occupation**	**Visiting from**	**Frequency of visits to Paignton Zoo**
1 (non-member; mother, father & child)	35 (female) 62 (male), 20 months (male)	Mixed (Asian/Portuguese); White British	Researcher; Management Consultant	Exeter	Not been for many years
2 (non-member; two friends)	52 (female), 56 (female)	White British	Researcher; Finance Administrator	Exeter	Not been for many years
3 (non-member: mother & children)	43 (female), 11 (female) 8 (female), 4 (male)	Mixed (Asian/British)	Researcher	Crediton	Visited in last 2 years

Table 4.2 Demographic information of Phase 1 visitor unit participants.

4.8.1.2 Go-alongs at Paignton Zoo

I arranged to meet each visitor group in the entrance hall at Paignton Zoo. Having introduced myself to each member of the group I then provided a short summary of what I was planning to do during the zoo visit, and checked if they had any questions or concerns. I then collected the pre-signed ethics forms, or asked participants (as appropriate, depending on age) to sign an ethics form at that point. For visitor unit 3, I recorded a verbal consent for the youngest child (aged four).

I used a Zoom H4n Pro Handy Recorder to record each interview. This digital recorder had been recommended to me by another PhD colleague who had carried out go-alongs on busy high streets in London. Fitted with X/Y microphones, it allows for high quality stereo sound to be captured.

I joined each visitor unit for between 1.5 and 2 hours. For two of the groups this was the majority of their time spent at the zoo, although one group stayed on a little longer. I asked the group to go where ever they wanted in the zoo and to spend as much or as little time as they wanted at each exhibit. The interview schedule described in Section 4.5.2.1 was used to guide my questions and discussions. I made mental notes of how participants were interacting with each other and with the animals they encountered, and of the behaviours of the animals during those encounters. Where possible I also took photographs of the animals and of the participants interactions with both these and any associated information/interpretation resources at the exhibit. These interviews in total generated 5 hours and 40 minutes of audio recording. At the end of the interview I either arranged a time, date and location for the post-zoo visit interview, or agreed to email the group with some suggested times and dates.

After the interview I uploaded the audio recording. I also wrote up field notes about the visit, and developed a template (Appendix 11) to capture information regarding: general conditions at the zoo; route taken and animals seen; animal activity; visitor-animal interactions; visitor-researcher interactions; and themes of discussion. This template helped to ensure some consistency in the recording of observations and reflections from go-alongs. I also uploaded

photographs I had taken during the visit, which I then printed out for use during the post-visit interview.

4.8.1.3 Post-zoo visit interview

My intention was to conduct the follow-up, semi-structured interviews between one and two weeks following the zoo visit, when the visit was still fresh in the memory of the group members. This was possible for visitor units 1 and 2, but for visitor unit 3 it had to be almost 3 weeks post-visit, due to the logistics of organising a busy family.

These interviews took place either at the University of Exeter's St Luke's campus café (visitor units 1 and 2) or at the visitor unit's home (visitor unit 3). I used the post-zoo visit interview schedule described in section 4.5.3.1 to guide these interviews, and again used the Zoom H4n Pro Handy Recorder for audio recording. I used prints of photographs I had taken during the zoo visit as a prompt to remind the group about the zoo visit and the animals they saw. Before completion of the interview, I asked for feedback regarding the participants' engagement in the research. These interviews lasted between 45 minutes and one hour, and in total generated 2 hours and 50 minutes of audio recording.

At the end of each interview I asked the participants which of the three gifts they would like to receive as a thank you for participating. I also informed them that I would send them a summary report of the findings from my research once my thesis had been completed. Depending on the thank you gift selected, I subsequently liaised with the appropriate member of staff at the WWCT to have it sent out to the participants.

As in the case of the zoo interview, I uploaded the audio recording and wrote field notes regarding: themes emerging from discussion; participant-participant interactions; participant-researcher interactions; and my own reflections on the interview.

4.8.1.4 Participant feedback on pilot fieldwork phase

The visitor unit participants provided very helpful feedback regarding the different stages of their engagement with the study. These are described below:

(i) **Pre-visit information:** The information sheets and consent forms were clear and easy to read. Not all participants in each group had read the information sheet in advance of the visit, so they welcomed my introduction to the study on arrival at the zoo.

(ii) **Researcher- participant interactions at the zoo**: Participants found me engaging and easy to talk to, and the experience very enjoyable. They did not find my approach onerous or intrusive on their visit. One participant commented specifically on the benefit of using an audio recorder, as it enabled me to engage with them at all times, and not be distracted by taking notes, which they would have found off-putting. A couple of participants commented that having me with them at the zoo did make them think more about what they were experiencing than they would have normally. One family group said they would have had a bit more family discussion about which animal at the zoo each of them most looked like, if I had not been there. However, they did do some of this in my presence.

(iii) **Interview schedules**: Participants felt that the amount and nature of the questions asked at the zoo was just right, and that it was good to separate them out into zoo visit and post-zoo visit sections. Some participants felt it would have been too much to ask the post-visit questions as part of the zoo visit. Others felt that if I had tried to explore the meaning of emotional responses at the zoo in more depth at the time, it would have detracted from their experience at the zoo.

(iv) **Timing of post-zoo visit interviews**: The timing of these interviews was appropriate. Some participants suggested that they might have struggled to recall some of the detail of their experiences, if there had been a longer gap between the zoo visit and post-visit interview.

(v) **Photographs of zoo visit**: Some participants found these helpful in recalling the zoo visit and the animals they saw. They were particularly popular with the younger children as something to look at and play with during the interview.

4.8.1.5 Researcher reflections on pilot phase

From my own perspective I found it extremely valuable to undertake this pilot phase. Overall it helped me to gain confidence in the workability of my methodology in the field, which I knew would stand me in good stead for future interviews. On listening back to the interviews, it was apparent that I had co-created (see Section 4.5.3, Crang and Cook, 2007) rich data in relation to my research objectives. There were a number of specific reflections, detailed below in relation to both the go-alongs and post-visit interviews, which were very much in keeping with the pilot participant feedback:

(i) Go-alongs at the zoo

- **Researcher- participant interactions at the zoo**: All the participants appeared pleased and excited to be visiting the zoo. I was able to share in their pleasure and also to gain my own enjoyment from being part of a visit to the zoo. I felt that I was very much part of the visiting group, as borne out by the participants' feedback. I was aware that this would have been aided by the professional relationship that one of each of the group members had with my partner, and that they were helping me to trial my methodology. However, my own experiences as a zoo visitor, along with my friendly manner, also made it easy to build a rapport with the group. Conversation flowed well, with participants eager to engage in discussion. The participants did ask some questions of me regarding animal welfare, behaviour and the work of the zoo. Where able, I provided short, factual answers to these questions.
- **Engaging with children and young people:** The children and young people participating in the pilot study varied from 18 months to 11 years. The older children, aged 8 and 11 years appeared happy to engage in discussions and to ask questions, sometimes with the support of their mother. However, the 4 year old was easily distracted by the animals, play areas and general excitement of being at the zoo, and did not really engage in discussions, although his mother gave me an idea of some of

his likes and dislikes regarding animals, and how, as a family, they experience animals and the natural world.

- **Length of go-along at the zoo**: The interviews were between 1.5 and 2 hours in length. Retaining a high level of focus on the task in hand, whilst attending and responding to the individuals, and the group as a whole, required a great deal of concentration. However, I felt that this length of time enabled me to gain rich insight into the experiences of the participants.
- **Audio recording**: I found the recorder comfortable and lightweight to hold in the palm of my hand, and easy to operate. Due to the high quality of the recorder I did not need to hold it close up to participants when they were talking. This meant it was unobtrusive, which further aided the natural flow of conversation. Through the use of the recorder, I was able to fully engage with the group without trying to take written notes of their conversations. As noted in the participant feedback, this was a welcomed feature.
- **Interview schedule**: This worked well, with the questions about participants' previous visits to zoos providing a good ice-breaker to get conversation flowing. In asking people about their feelings when watching different animals, I found that some visitors found it easier and/or were more comfortable in verbalising their feelings. In response to this I found it helpful to re-phrase the question in slightly different ways and to probe gently about how they felt. In such cases the general non-verbal expressions during the visit were helpful in giving a sense of how the individual was feeling.

  For the visitor group with three children the conversations did not always happen with everyone present as the children intermittently ran ahead or lagged behind. In addition, conversations with their mother were often interrupted by the children, but I generally managed to keep the thread of the conversation going.
- **Researcher photograph**y: It had been my original intention to take photographs of things that the visitors identified as being important to them at the zoo. Although I reminded them of this at the outset of the visit, I found that this did not happen in practice. People did not

remember to point things out to me specifically and/or they took photographs themselves. I also felt that it interrupted the flow of conversation to repeatedly ask people if they would like me to take a photograph. In practice I took photographs on my mobile phone of the exhibits we looked at, primarily as an aide memoir for my own purposes and as a prompt/reminder for the post-visit interview. I did not always manage to take a photograph at each exhibit. At times I was engrossed in conversation, during others the animal went out of view before I managed to take a photography, and on rainy days it was difficult to hold an umbrella, audio-recorder and mobile phone at the same time.

- **Field notes after the zoo visit**: I wrote these as soon as possible after the visit. Whilst I did find it slightly overwhelming in terms of the amount I was trying to recall, the template I created aided this process.

(ii) Post-zoo visit interviews

Overall, I found these interviews quite challenging. I felt that there was quite a contrast between the fun and enjoyment of seeing and being with the animals at the zoo, and then a more formal and serious discussion about the meaning of these emotions in relation to the participants' engagement in wildlife conservation. My specific reflections were as follows:

- **Researcher-participant interactions in post-visit interview**: In contrast to the zoo visit interview, this second interview, following a semi-structured interview schedule, felt slightly more formal. However, as I had already built up a good relationship with the participants during the zoo visit, this facilitated an easy flow of conversation.
- **Engaging with children and young people**: I found a similar level of engagement as described for the zoo interview.
- **Interview schedule**: Theme 3 of the interview schedule was most challenging. This explored the influence of the participants' emotional responses at the zoo in relation to their expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world. I felt slightly uncomfortable in asking people about these, as I did not want them to perceive that I was judging them in some way. However, this appeared to be more about my own sensitivities, as

participants did not appear defensive or troubled by my questions, and they did not provide me with any feedback to substantiate my concerns.

- **Using photographs**: This provided a useful tool to refocus and recap on the zoo visit, ahead of discussing Theme 3 of the interview schedule. The photographs were laid out for participants to look at and remained there whilst I explored the meaning of the zoo visit with them. Some of the participants also showed me some of the photographs they had taken during the visit.

4.8.1.6 Amendments to methods of enquiry

A synthesis of the feedback from the pilot participants and my own experiences and reflections, served to affirm the use of my chosen methods. The main amendments to the process were with regard to taking photographs at the zoo, and with regard to the post-zoo visit interview schedule.

In my first post-visit interview I had separated the questions in Theme 3 into a 'before and after' the zoo visit, in terms of participants' expressed feelings towards, and pro-environmental behaviours in support of endangered wildlife and the wider natural world. I found that this set up an artificial construct, which was no doubt reflective of my thinking at the time in terms of understanding the influence of a zoo visit. The participants tended to repeat themselves across the 'before and after' scenarios, and it made the conversation somewhat repetitive. On discussion with my supervisor I amended this part of the interview schedule for Phase 2 of the fieldwork, removing the question about expressed feelings and pro-environmental behaviours prior to the zoo visit. This proved helpful, and enabled the participants to focus their reflections on the influence of their experiences at the zoo.

In addition, I did not ask pilot participants specifically about their knowledge or behaviours in relation to the WWCT's main conservation advocacy messages, which (as described in Chapter 3) at that time centred on: sustainable palm oil; marine plastics; wildlife trade; and environmental management. Through discussion with my supervisors I added a question to ask participants about this during the next phase of interviews.

4.8.2 Phase 2 Fieldwork: January to May 2017

Following the completion of the pilot fieldwork phase, I instigated a second phase of fieldwork in January 2017. The following sections describe the recruitment process, research participants and further reflections and adaptations to the approach both during and at the end of this phase.

4.8.2.1 Recruitment of research participants

Recruitment was undertaken using the mechanisms described in Section 4.5.5.2, with the aim of reaching a large potential audience of zoo visitors, both occasional and more regular visitors, including zoo members, who held an annual pass to the WWCT's three sites. Following a discussion with the Paignton Zoo Marketing Department, adverts were posted on social media at the end of January 2017, with the online publications going out in early February 2017. In response to the adverts on social media I received 11 enquiries (10 from Facebook, one from Twitter) the day after they were posted, all from current members of the WWCT. I replied to all potential participants, attaching project information sheets and consent forms. I asked them to confirm if they would like to take part, and gave them a clear deadline of 10 days in which to do this. From this I secured the involvement of seven visitor units, although two subsequently withdrew, both due to health issues.

The online articles generated a further seven enquiries. At this point, in addition to sending out project information sheets and consent forms, I also asked potential participants to complete a short questionnaire regarding demographic aspects of their visitor unit: age; gender; WWCT membership status; where they were visiting from; and their frequency of visits to Paignton Zoo (Appendix 12). Again, I gave them a clear deadline of ten days in which to respond. As highlighted in section 4.5.5.1, whilst the basis of the research was not about securing a representative sample of all visitor types, I was interested in securing a range of different types of participants to facilitate exploration of a diversity of visitor experiences at the zoo. The questionnaires returned indicated prospective participants with some different characteristics to those already invited to participate in Phase 2, in particular with regard to frequency of visit to

zoo, home location, and composition of visitor unit. On the basis of these questionnaires, three visitor units were invited to participate. However, of these, one visitor unit subsequently cancelled their zoo visit, and it was not possible to rearrange another convenient time with them. The demographic details of the visitor units recruited in this phase of fieldwork are shown in Table 4.3.

Visitor unit number	Age & gender	Ethnicity	Occupation	Visiting from	Frequency of visits to Paignton Zoo
VU4 (member; mother & child)	34 (female) 15 months (male)	White British	Youth worker (but currently full-time mother	Paignton	2/3 times per month
VU5 (non member; mother, father & child)	39 (female) 44 (male) 11 (female)	White British Asian British Asian British	Nurse; Marketing Executive	Morton-hampsted	every year or so
VU6 (member)	65 (female)	White British	Retired (does voluntary charity work)	Paignton	monthly
VU8 (member; mother, father & children)	30 (female) 28 (male) 4 (female) 18 months(female)	White British	Nurse; Lorry Driver	Exeter	1+/month
VU9 (member; mother & child)	35 (female) 2.5 (male)	White British	Teacher (but currently full time mother)	Paignton	2 times/ month
VU10 (member)	64 (female)	White British	Part time Domiciliary Care Officer	Paignton	3-4 times/ month
VU11 (member; adult couple)	71 (female) 74 (male)	White British	Retired (previously Secretary; Retired (previously Farm Worker)	Paignton	1+/month

Table 4.3 Demographic information on Phase 2 visitor unit participants.

As shown in Table 4.3, the approach to participant recruitment used in this phase was particularly fruitful in securing the involvement of members of the WWCT who live locally to Paignton Zoo.

4.8.2.2 Reflections on Phase 2 Fieldwork

Seven go-along interviews and seven post-zoo visit interviews were conducted between February and May 2017. They generated 9 hours 40 minutes and 6 hours 10 minutes of audio-recorded data respectively.

I made one alteration to the interview process during this phase, with regard to the timing of the post-visit interview. As members of the WWCT, some of the research participants had been visiting the zoo on a very regular basis (up to three times per month) for a number of years. Given this I felt that there was not necessarily the same need for reflection time after the visit in comparison with those in the pilot study who had not visited the zoo for two years or considerably more. Therefore, in the case of three of the visitor units, I gave them the option of doing the post-zoo visit interviews in the zoo café directly after the go-along around the zoo. This appeared to work well, although was only suitable for adult couples or individuals. It was not practical for those with small children, and separate post-visit interviews were conducted for these visitor units.

One addition was made to the post-visit interview schedule, to elicit information about the reasons for participants becoming members of the WWCT, and for the frequency of their visits. The question regarding awareness and pro-environmental behaviours in relation to the WWCT's key advocacy messages, added following the pilot phase, proved successful. This question elicited a range of responses regarding participants' levels of awareness of these messages. The focus on particular behaviours also aided discussion about these and other pro-environmental behaviours.

On completion of the six go-along interviews and the corresponding six post-zoo visit interviews, the data began to suggest that theoretical saturation (Crang and Cook, 2007) had been reached within the responses from members of the WWCT i.e. I was finding that the types of responses to my questions were

becoming both similar and familiar. However, there was a need to recruit some more non-members to further explore their experiences, as theoretical saturation was not evident in these cases. Consequently, a third and final round of recruitment was initiated during the summer of 2017. This is detailed in the following section.

4.8.3 Phase 3 Fieldwork: July to September 2017

4.8.3.1 Recruitment of research participants

This phase of participant recruitment involved elements of the same approach used in Phase two of the fieldwork. As before, Facebook and Twitter with a URL link to the visitor research web page were used. However, in contrast to Phase 2, an advert was not placed in the Zoo News or ENews, as this is sent to the WWCT members, and the focus of Phase 3 was on recruiting non-members. The text for Facebook, Twitter and the visitor research web page specifically requested enquiries from non-members. The restriction of living one to two hours from Paignton Zoo was removed, to give more scope to include people visiting the zoo from further afield (whilst acknowledging that the post-zoo visit interview may therefore need to be conducted by telephone or on Skype). The detail of the three possible options for the thank you gift for participating in the research were also explicitly listed, rather than the previous statement that a gift (unspecified) would be offered to participants.

The approach used in Phase 2 recruitment required potential participants to have some prior contact with or interest in the zoo. Therefore, it was not suited to those who might be thinking of planning a visit to the zoo, but who did not have some existing level of engagement with it. In response to this a short advert was placed on the Admissions and Tickets web page of the Paignton Zoo, again with a URL link to the visitor research web page. This was to open up possible engagement in the research to people who were looking to visit and to book tickets online in advance.

The Facebook post and Tweet were posted on 9th July 2017. The advert on the Admissions and Tickets web page was posted on the same day and ran for three weeks. By 17th July 2017, 40 responses had been received by email (37

from Facebook, 3 from the Admissions and Tickets web page). All respondents were sent an email providing a short overview of the research and attaching the project information and consent forms. As for Phase 2, respondents were also asked to complete the short questionnaire to help guide selection of prospective participants. The email also set the respondents a clear deadline (10 days from the date of the email) to respond.

I received 12 responses, representing a response rate of approximately 32%. It was expected and understandable that some initial respondents would not pursue their initial enquiry. Unless they had already followed the link to the visitor research web page via the URL, they would not have appreciated the detailed nature of their participation in the research. Therefore, they would only have become fully aware of what was involved upon receiving the email with the research overview and project information sheets and consent forms. In addition, I made it clear in my email that prospective participants would not receive free entry to the zoo as part of their participation (although complementary tickets for a return visit would be available). This was in response to two initial responses, where people asked if they would get free entry if they took part. Thus, this may have been another reason for some people not pursuing their original enquiry.

Given my reflections on the need for more non-member participants, alongside the nine visitor units that had already participated in the research, I agreed with my supervisory team that the study would benefit from engaging with a maximum of another five or six visitor units. This was felt to be manageable in terms of delivery in the field and in transcribing and analysing the amount of data that was likely to be generated. In terms of selecting participants from the twelve respondents, in addition to non-membership, I reflected on the composition of the visitor units which had already participated in the study. From this I ascertained that there was a lack of engagement with the following: non-local zoo visitors; one off visitors/visitors coming to the zoo infrequently; teenagers; and men. Whilst as already stated, this study was not aiming to be representative of visitors to Paignton Zoo, it was felt to be helpful to include a variety of different zoo visitors. Therefore, using this reflection on visitor unit

composition, I chose five additional visitor units. All responded positively to the invitation to take part, although one subsequently withdrew. I emailed the remaining seven prospective participants to thank them for their interest in the research, and to explain that they had not been selected as the study was trying to reach a broad range of visitors. The demographic details of the visitor units recruited in Phase 3 are shown in Table 4.4.

Visitor unit number	Age & gender	Ethnicity	Occupation	Visiting from	Frequency of visits to Paignton Zoo
12 (non-member; mother, father & children)	31 (female), 42 (male), 9 (male), 7 (female)	White British	Learning Support Assistant; Police Officer	Chelmsford, Essex	every year or so (children members of Colchester Zoo)
13 (non-member; mother, father & children)	46 (female), 50 (male), 15 (male), 13 (female), 8 (female)	White British	Administrative Assistant; Lorry driver	Boston, Lincolnshire	annually
14 (non-member; mother, father, grandfather & child)	41 (female), 51 (male), 70 (male), 3 (female)	White British	Housewife/artist; Car upholsterer; retired Head Teacher	Plymouth	every year or so (one of group uses mobility scooter)
15 (non-member, friendship group)	49, 59, 65, 45 All female	White British	Works in Education; Cancer Researcher in university; optician; teacher	Nuneaton, Sheffield & Nottingham	Many years ago (also members at Twycross/ Chester zoos)

Table 4.4 Demographic information on Phase 3 visitor unit participants.

4.8.3.2 Reflections on Phase 3 Fieldwork

Four Phase 3 go-along interviews were conducted at Paignton Zoo during August 2017, with the associated post-visit interviews completed during August

and September 2017. They generated 6 hours 30 minutes and 4 hours 25 minutes of audio-recorded data respectively.

In this phase all the go-along interviews at the zoo took place during the school holidays, so the zoo was busier than during the previous two phases of fieldwork. However, this did not appear to make any significant difference in the visitors' ability to get up close to and spend time with different animals. Each visitor unit contained four or five people (as opposed to the more common one to three people in the first two phases of fieldwork). The extent to which the different visitor units stayed together did vary, so it was not possible to pick up on all of the conversations that were going on. As a result, I did miss some exchanges between visitors in relation to their animal experiences, but in general I was able to be part of group discussions at many of the animal exhibits. At times that the unit did break up, being able to chat with a smaller subset of the whole unit did sometimes allow for more focused and unbroken discussion.

With the family groups, especially with the younger children, the parents did sometimes repeat my questions to encourage their children to respond. There was also a tendency at times for parents to answer on behalf of the children.
In terms of the post-visit interviews, it was possible to carry out three of the four face to face. For the two family groups who were staying in Devon on holiday, it was possible to carry out the interview later on during their holiday. One was conducted carried out at a local café, and the other at the house belonging to the in-laws of one of the participants. For the family group visiting from Plymouth, it was not possible for the grandparent to attend this second interview.

A telephone interview was carried out with three of the four individuals from the friendship group. Unfortunately, due to family illness the fourth member of the group could not be present, and it was not possible to arrange another suitable time to conduct a one-to-one interview with them. The structure of this interview differed slightly to the face-to-face ones, as the participants tended to respond to each question, one after the other, with less exchange between group

members than was the case during the face-to-face interviews. Whilst this did make for a more stilted back and forth interview, the respondents still took time to provide detailed answers.

4.9 Data analysis

Collectively the three phases of fieldwork generated a total of 35 hours and 20 minutes of audio-recorded interview data (21 hours 50 minutes from go-alongs at the zoo; 13 hours 25 minutes from post-zoo visit interviews) from 14 different visitor units. The go-alongs and post-zoo visit interviews also generated field notes, and on most occasions at the zoo, some photographs of the visit. The whole process from the point of initial contact with potential research participants, arranging interview dates, carrying out interviews, writing up field notes and transcribing interviews, and arranging thank-you gifts, took on average six days per visitor unit, and approximately 84 days for all 14 visitor units. Table 4.5 below provides a summary of all the research participants engaged in the study. It also includes the pseudonyms given to each participant by means of a random name generator, in order to protect the anonymity of participants responses in the process of writing up the research findings (Random Name Generator, 2018).

Visitor unit number	Visitor unit composition	Paignton Zoo membership status	Pseudonym	Gender	Age	Ethnicity	Occupation (as applicable)	Visiting from	Frequency of visits to Paignton Zoo
VU1	mother, father & child	non-member	Sara Steven Thomas	female male male	35 years 62 years 20 months	Mixed: Asian Portuguese White British Mixed	Researcher Management Consultant	Exeter, Devon	not been for many years
VU2	two friends	non-member	Laura Christina	female female	56 years 52 years	White British White British	Researcher Finance Administrator	Exeter, Devon	not been for many years
VU3	mother & children	non-member	Rashmi Anna Jessica David	female female female male	43 years 11 years 9 years 4 years	All Mixed: Asian British	Researcher	Crediton, Devon	visited in last 2 years
VU4	mother & child	member	Karen Matthew	female male	34 years 15 months	White British White British	Youth worker (currently full-time mother)	Paignton, Devon	2/3 times per month
VU5	mother, father & child	non-member	Rebecca Naresh Rose	female male female	42 years 46 years 10 years	White British Mixed: Asian British Mixed: Asian British	Nurse Marketing Executive	Morton-hampstead, Devon	every year or so
VU6	one adult	member	Andrea	female	64 years	White British	Retired (does voluntary charity work)	Paignton, Devon	monthly

Visitor unit number	Visitor unit composition	Paignton Zoo membership status	Pseudonym	Gender	Age	Ethnicity	Occupation (as applicable)	Visiting from	Frequency of visits to Paignton Zoo
VU8	mother, father & children	member	Jennifer Christopher Carolyn Elizabeth	female male female female	29 years 34 years 4 years 18 months	White British White British White British White British	Nurse Lorry Driver	Exeter, Devon	1+/month
VU9	mother & child	member	Amy Mark	female male	35 years 2.5 years	White British White British	Teacher (but currently full-time mother)	Paignton, Devon	2 times/ month
VU10	one adult	member	Alice	female	65 years	White British	Part-time Domiciliary Care Officer	Paignton, Devon	3-4 times/ month
VU11	adult couple	member	Jane Kenneth	female male	71 years 74 years	White British White British	Retired (Secretary) Retired (Farm Worker)	Paignton, Devon	1+/month
VU12	mother, father & children	non-member	Julie Bruce Justin Ellen Elsie	female male male female female	46 years 50 years 15 years 13 years 8 years	White British White British White British White British White British	Learning Support Assistant Police Officer	Chemlsford, Essex	every year or so (children members of Colchester Zoo)
VU13	mother, father & children	non-member	Heather Anthony Sean Kelly	female male male female	31 years 42 years 9 years 7 years	White British White British White British White British	Administrative Assistant Lorry driver	Boston, Lincolnshire	annually
VU14	mother, father,	non-member	Frances Patrick Howard	female male male	42 years 51 years 70 years	White British White British White British	Housewife/artist Car upholsterer	Plymouth, Devon	every year or so

Visitor unit number	Visitor unit composition	Paignton Zoo membership status	Pseudonym	Gender	Age	Ethnicity	Occupation (as applicable)	Visiting from	Frequency of visits to Paignton Zoo
	grandfather & child		Stephanie	female	3.5 years	White British	Retired (Head Teacher)		
VU15	friendship group of four adults	non-member	Deborah Janice Angela Diane	female female female female	49 years 65 years 59 years 45 years	White British White British White British White British	Works in Education Researcher Optician Teacher	Nuneaton Sheffield Nottingham Nottingham	Many years ago (also members at Twycross/ Chester zoos)

Table 4.5 Summary of demographic information for all visitor unit participants.

Note: There was no Visitor Unit 7: participants withdrew the day before the zoo visit due to family illness

4.9.1 Transcription

All of the audio-recorded data were transcribed using NCH Express Scribe Transcription Software. This was an extremely time-consuming process. On average it took me six hours to transcribe one hour of interview, although the interviews at the zoo tended to take longer, especially for visitor units where there was a great deal of interactive conversation. Overall the transcription process took in the region of 210 hours.

The high-quality digital audio-recordings proved particularly helpful for the go-along interviews at the zoo, and highlighted the value of investing in a good quality recorder. Despite the background noise and the variable distance between myself and participants as we walked around the zoo and watched the animals, it was generally easy to hear and therefore transcribe all that was said. The recorder also picked up the noises of birds and animals (within exhibits and free-ranging local wildlife) that we encountered, so during transcribing it was possible to feel very much 'back in the zoo'. In addition, references to field notes and photographs (where available) of the go-alongs were very helpful during the transcribing process, particularly as a reminder of the animals encountered, the animals' behaviours, and interactions between the research participants and the animals/and or exhibit interpretation.

Whilst this was clearly a very lengthy process, transcribing was an excellent way to familiarise myself with and to have a good understanding of "…the diversity of circumstances and characteristics within the data set…" (Ritchie et al., 2003 p.221). In line with other qualitative researchers, I therefore found this to be a key phase of my data analysis (Bird, 2005; Braun and Clarke, 2006), and an interpretive practice (Cope and Kurtz, 2016), not just a simple process of creating written text for subsequent analysis.

4.9.1.1 Transcribing and coding of interjectives

Unsurprisingly, given that participants were encountering primarily exotic species in close proximity, interjectives were commonly used during the zoo go-

along interviews to convey a range of emotional responses. I employed an online guide to help ensure that these were transcribed consistently, and in some cases to help decipher the interjective being used by participants (Daily Writing Tips, 2016). However, as highlighted in this online guide, the specific emotion being conveyed through the use of an interjective can vary, for example “Ha” can be an expression of joy or surprise or triumph. Therefore, in terms of descriptive coding, care had to be taken in inferring an emotional response from an interjective. To address this, where interjectives appeared in transcripts alongside evidence of their meaning (through accompanying narratives from participants), it was possible to code these to a category of emotional response. However, in the few cases where there was no such clarification available, the interjective was not coded.

4.9.2 Thematic analysis

The data collected during the fieldwork phase were analysed to address the overall aim and three objectives of the research study. A detailed thematic analysis of the data was undertaken to make sense of the copious amount of textual material that was generated through interview transcription (Jackson, 2001).

Whilst thematic analysis is widely used in qualitative data analysis, it does not exist as a discretely ‘named’ form of analysis (Braun and Clarke, 2006). It is described variously across the methods literature, but in essence involves a multi-phased, iterative process where data are ‘coded’ - described/categorised in some way - and which moves from an initial descriptive coding phase through to more analytic and conceptual stages (Cope and Kurtz, 2016; Braun and Clarke, 2006; Yin, 2016). Through this process empirical data are organised and analytic structures are developed, from which the researcher can identify trends and build themes. These themes then form the framework for the discussion of research findings, connecting empirical findings with broader conceptual literature (Cope and Hurtz, 2016; Yin, 2016).

4.9.2.1 Descriptive coding of interview transcripts

Firstly, descriptive coding of the interview transcripts was completed. This involved line by line reading and marking up of a paper copy of an interview transcript to identify particular words and phrases (Jackson, 2001), which described what was being discussed or enacted during the interview. My reflexive research practice during the fieldwork stage, coupled with the process of transcribing, had generated a strong sense of some of the issues arising from the data. This familiarity with my data definitely aided the descriptive coding. However, I decided to employ open coding (Yin, 2016), rather than to assign a priori codes to this first level of analysis, to ensure that I had not overlooked or conversely overemphasised aspects of my data. The aim of this exercise was to develop coding frameworks for both the zoo and post-zoo visit interviews, which could be used to sort and categorise the data contained within the interview transcripts.

This process was undertaken systematically with pairs of interviews i.e. the zoo and post-zoo visit of each visitor unit. The coding of the first pair of interviews generated two long lists of the issues which arose during the interviews. Each list was then checked to remove duplication, and then the issues were sorted into a number of different categories (or codes). A number of emerging issues appeared in more than one category, which is usually indicative of interconnection between themes or issues (Ritchie et al., 2003). I kept a note of these for subsequent associative analysis.

This process enabled a nascent descriptive coding framework to be developed for each of the zoo and post-zoo visit interviews. The descriptive coding process was then repeated with the next pair of interviews, using these coding frameworks as a basis, and marking up and listing additional elements which the nascent frameworks did not already reflect. Having completed the coding of the next interview pair, the coding frameworks was amended to include these additional elements. Due to the large quantity of data, I initially undertook this process with a sub-set of six pairs of interview transcripts. I chose interviews with a range of visitor units, which I knew to be rich and diverse in nature, to help ensure that my coding frameworks were relatively comprehensive and

would be appropriate for use with the wider data set. The zoo-based interviews were quite challenging to code, due to their relatively unstructured nature, including not only participants' responses to questions, but also interactions between members of the unit and between participants' and animals. In contrast the semi-structured post visit interviews were much more straightforward to address, where participants were responding to a more structured interview schedule, without the distractions of live exotic animals.

The two coding frameworks generated through this process are provided in Appendices 13 and 14. The coding framework for the zoo-based interviews was comprised of 15 codes, and that for the post-zoo visit was comprised of 16 codes. The majority of the codes within each framework were broken down into a number of sub-codes, which was very helpful in managing the large volume of data, and in aiding the subsequent analysis of the coded data.

Once my descriptive coding frameworks had been developed, they were then used to code the whole of my data set. This was done with the aid of NVIVO 11, a software package designed to support qualitative research techniques of organising, analysing and sharing data (Silver and Lewins, 2014). Initially two new projects were set up in NVIVO, one for the zoo interviews, and one for the post-visit interviews. I manually inputted the appropriate coding framework and uploaded the corresponding interview transcripts into each NVIVO project. The basic details of each of the 14 visitor units were also manually inputted into each project. Once this information was in place, I was able to go through each transcript, sorting and categorising the text in accordance with the relevant coding framework. I found that the coding framework I had developed based on six sets of interviews worked extremely well across the whole data set. There were a very few occasions where it was not immediately possible to identify the correct code or sub-code for a portion of text. In such cases I added a further sub-code of "Other" to enable the data to be captured. Memos were also kept to inform the coding process.

4.9.2.2 Conceptual analysis

Whilst this systematic approach described above was applied to the descriptive coding of the interview transcripts, it was "…almost impossible to read a transcript without simultaneously reflecting on the theoretical premises or conceptual issues that led one to undertake the research in the first place" (Jackson, 2001 p.202). However, I viewed the process of analysis as iterative and ongoing (Cope and Kurtz, 2016), from the early stages of participant interviews. Keeping detailed notes of thoughts and questions as I went through this process enabled me to keep track of my emerging ideas.

Once all the interview transcripts had been coded using NVIVO, I was able to collate all the sections of text related to each code and sub-code. Taking one code at a time, I then followed the approach outlined in Crang and Cook (2007 p.160) to begin a more systematic and in-depth analysis of my data, to identify wider themes present within it. This involved four aspects:

(i) reading all sections of text contained within each code;

(ii) where necessary, checking back to the original transcripts – this was particularly important in cases where it was not clear which animals were being referred to during the go-along interviews;

(iii) starting to write down my thoughts on the issues contained with each code, and how they might relate to each other and/or to other codes – it was important to do this both in relation to codes within each of the two types of interview, and to compare across between the zoo visit and post-visit interviews; and

(iv) identifying quotes that captured the essence of the emerging issues.

From this basis I was then able to create an outline descriptive/analytical summary of each code. In addition to reading within and across codes, and between zoo visit and post-zoo visit interviews, I also read across the other materials I had gathered in the process of my fieldwork, coding, and time spent at the zoo, to assist in the development of conceptual themes (Jackson, 2001). These materials consisted of four elements: (i) field notes based on each interview; (ii) summary reports at the end of each of the three phases of

fieldwork; (iii) notes and memos on the coding process; and (iv) research diary entries.

Through this process of detailed description and analysis, an overarching theme was identified in relation to each of the three research objectives. Each theme was able to draw together data categorised under different codes (and across zoo and post zoo visit interviews) to capture the key aspects of the data to give insight into one of each of the three research objectives (Braun and Clarke, 2006; Bryman, 2016). The three overarching themes identified were as follows (full details will be provided in the following three chapters):

- **Embodied experience**

  This theme is used as a basis to address the first research objective:

  Objective 1: During the zoo visit: To identify and explore the emotional responses of visitors to their encounters with animals at the zoo.

  'Embodied experience' relates to firsthand, lived experiences of animals at the zoo, other wildlife attractions, and as part of the participants' everyday lives. These embodied encounters with a range of animals over time and space are central to understanding the emotional responses of visitors to their encounters with animals at the zoo.

- **Persistence: the influence of the zoo visit over time and space**

  This theme is used as a basis to address the second research objective:

  Objective 2:

  Beyond the boundary of the zoo visit: To identify and explore the influence of visitors' emotional responses to their encounters with animals at the zoo on their expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world.

  In addressing this objective, 'persistence' is used to describe how, and to what extent, participants encounters with animals at the zoo remained with them over time and space beyond the boundary of the zoo and zoo visit.

This persistence can be understood both in relation to participants' expressed feelings in relation to endangered wildlife and the wider natural world, and in relation to actions which can be categorised as some form of pro-environmental behaviour.

- **Opportunities and challenges**

This theme is used as a basis to address the third research objective: Objective three: Beyond the boundary of the zoo visit: To explore ways in which the zoo can increase visitor engagement in pro-environmental behaviours.

Approaches to enhancing visitor engagement in pro-environmental behaviours can be understood in terms of a series of 'opportunities and challenges' for the zoo. Visitors would welcome a range of additional measures both at and beyond the boundary of the zoo, which can be framed as opportunities for the zoo to help increase visitor involvement in endangered wildlife conservation. However, in terms of their potential implementation, these opportunities also present a range of challenges to the current governance and/or operation of the zoo.

4.9.3 Writing up

Acknowledging that there are different ways to represent the wealth of material gathered in the field, and the interactions between myself and the research participants, the three themes described in Section 4.9.2.2 above were used as the foundation for writing up the findings of this research study. In this way the approach to writing up can be understood as one of "writing through codes" (Crang and Cook, 2006 p.157), where the narrative is based directly on the formal analysis of research materials.

I found the process of writing up not just a simple case of expanding on issues and arguments identified in the descriptive/analytical summaries. As I wrote, I was aware of the need to be careful and logical about the points I was arguing and illustrating. This required reference back to original materials (including:

coding frameworks; original transcripts; photographs taking during visits; fieldwork notes; and code reports), to check, verify and to think again as necessary. Moving between these different materials, I was very grateful for my detailed approach to the collection of field notes and in my data analysis, which greatly facilitated this process. In this way the writing up process felt like a further extension of the process of analysis. Whilst the overarching themes and structure remained appropriate, the finer details of the data analysis and the arguments being presented were as necessary, fine-tuned.

This approach to writing up centred on the representation of discussions with participants during the two interviews, using a wide range of verbatim quotes. Photographic and other visual materials were also included as appropriate, to aid in the portrayal of: (i) participants' encounters with animals at the zoo; and (ii) issues in relation to visitor engagement on site at the zoo. In terms of the photographic material included in Chapter 5, which is based on the go-along interviews, I endeavoured to use the photographs taken during the moments of encounter with the specific participants. However, on the few occasions this was not possible, I supplemented these with photographs taken at the zoo at a different time, or with photographs courtesy of the Paignton Zoo archive. Finally, I also included excerpts from my fieldwork and research diaries to aid further reflection of the issues under exploration.

4.10 Concluding summary

This chapter has outlined the methodological approach employed in order to address the research aim and three objectives of this research study. Starting from a description of the long-standing dominance of a positivist approach to zoo-based research, a rationale is provided for a qualitatively-based approach for this research study. The specific methods of enquiry within this interpretivist framework are described, and their relevance and value in relation to addressing this research study's aim and objectives explained. Having justified the methodological underpinnings for this research, the chapter has provided a description of each aspect of the data collection, subsequent data analysis and writing up of research findings, and in so doing has highlighted the rigorous approach adopted in undertaking all these aspects. Whilst providing a strong

justification for the use of this methodological approach, attention is also given to its potential limitations, which will also be returned to later in Chapter 8.

Moving on from methodological considerations, the following three empirical chapters now provide detailed accounts of the findings from this research. Each chapter addresses one each of the three research objectives, and is discussed through the lens of one of the three over-arching themes derived from the data analysis, and described in Section 4.9.2.2 of this chapter.

Chapter 5: Embodied experience

5.1 Introduction

This is the first of three empirical chapters which describe the key findings from this research study. It aims primarily to address the first objective of the research, focusing on the emotional responses of participants to their encounters with animals during the go-along interviews at Paignton Zoo. It also contributes to the second empirical chapter, Chapter 6, where consideration is given to the influence of these emotional responses in relation to participants' expressed feelings towards, and pro-environmental behaviours in support of the conservation of endangered wildlife and wider natural world. In addition, in combination with the second empirical chapter, it informs consideration of the third research objective, which explores the ways in which the zoo could increase visitor engagement in pro-environmental behaviours.

The material presented in this chapter is primarily derived from the thematic analysis of the go-along interviews at Paignton Zoo described in Chapter 4. It draws on the analysis of the emotions expressed verbally by participants during the moments of encounter with animals during their zoo visit, and on the insights from participants regarding the underlying reasons for these emotional responses. As described in Chapter 3, emotions are understood to be one of the three dimensions of affect: expressed feelings that are socially constructed through language and other representational practices (Anderson, 2006). In addition, this chapter utilises analyses of the observations of how participants interacted with each other and the animals they saw during the zoo visit. On occasion empirical data gathered in the post-zoo visit interview are also mobilised in support of this chapter, where visitors' reflections during this time served to further illuminate their emotional responses at the zoo. Finally, I draw on my own experiences during the go-along interviews, and of previous visits to zoos, to ensure consideration of my role and positionality within my research, and to aid further reflection on the empirical data.

The chapter starts by providing a description of the ten different categories of emotional responses that participants expressed during their moments of

encounter with animals at the zoo. It then goes on to consider in turn, the seven key factors which were found to be significant in influencing these categories of response. As appropriate, the interrelationships between the individual factors are also highlighted. Whilst these categories of emotional responses and the influencing factors are central to informing this chapter, they also contribute to subsequent chapters.

Using this material, the chapter will argue that the theme of *embodiment* is central to an understanding of the rich and varied emotional responses of participants to the animals they encountered at the zoo. Embodiment in the context of the zoo visit describes the firsthand, lived experiences (Davies, 2000) which participants had with animals during the go-along interviews. It also relates to previous experiences of animals which participants described at zoos, other wildlife attractions, and as part of their everyday lives.

In this way the chapter will generate a detailed understanding of the rich and varied nature of participants' emotional responses to animal encounters at the zoo and reveal the importance of embodied encounters in influencing and securing their emotional responses.

5.2 Categories of participants' emotional responses to animals encountered during the go-along

Through the thematic analysis described in Chapter 4, the coding framework derived from the transcripts of the go-along interviews at the zoo included a specific code to capture the participants' emotional responses to their encounters with animals. This code was sub-divided into ten different categories of emotional responses, as a means to capture and reflect the variety of emotional responses expressed by participants during each go-along (Appendix 13). Table 5.1 lists these ten categories and provides a short description of the nature of emotional response captured within each. Of these, 'enjoyment,' alongside 'awe and wonder' were expressed by all visitor units. Slightly less prevalent, but also common were feelings of 'love, empathy and connection' and 'concern, sadness and despair'. It was also quite common for participants

to express conflicting or mixed emotions, and to express ‘fear/anxiety’ or ‘dislike’. In contrast, emotions of ‘discomfort’, ‘anger/disgust’, and ‘boredom and indifference’ were expressed by only a very few participants within a small number of visitor units.

Category of emotional response	**Description of category**
Anger/ disgust	Participants described how they felt “angry”, “disgusted” and “appalled” about the destructive impact of human activities on the conspecifics of some of the animals they encountered at the zoo.
Awe and wonder	Participants described their emotions towards a range of animals they encountered using terms such as “fabulous”, “amazing”, “marvellous” and “fascinating”, showing an appreciation for both physical and behavioural characteristics of these animals.
Boredom and indifference	Participants described their emotions towards specific animal encounters, or the zoo visit in general, in terms of it being “boring” and/or neither entertaining nor interesting.
Concern, worry and sadness	Participants described their emotions towards particular animals they encountered and/or the enclosures within which these animals were housed using terms such as: “sad”, “worried”, “upset” and “concerned”, due to their perceptions that the animals were “distressed”, “sad”, “bored” or “lonely”.
Conflicting/mixed emotions	Participants described emotions from more than one category, that appeared to be mixed or in conflict with one another when encountering particular animals such as: ‘enjoyment’ along with ‘concern, worry and sadness’.
Discomfort	Participants described emotions towards particular animal encounters as not being “nice to see” or being “uncomfortable” to watch.
Dislike	Participants expressed a dislike of particular animals, due to their perceptions of these animals, using terms such as: “disgusting”, “slimy”, and “weird”.
Enjoyment	Participants described emotions towards their encounters with animals in terms such as how

	"nice", "lovely", "enjoyable", "exciting" and "fun" they found them to be.
Fear/anxiety	Participants described emotions towards their encounters with animals in terms of being "frightened" or "scared" or feeling "anxious".
Love, empathy and connection	Participants described emotions towards their encounters with particular animals in terms of feelings of "love", "connection", "affinity" and "empathy".

Table 5.1 Descriptive coding categories for participants' emotional responses to encounters with animals during the zoo visit.

Chapter 3 described how some psychology-based research has been undertaken within zoos to explore visitors' emotional responses to the animals they encounter. Studies including Myers et al. (2004) and Luebke et al. (2016) used different categories of emotions to capture participants responses at specific moments of encounter with particular animals. The research of Luebke et al. (2016) extended the work of Myers et al. (2004) to include twelve categories of emotional response: amusement; attraction; boredom; concern; contempt; curiosity; fear; love; respect/admiration; sense of connection; sympathy; and wonder/awe. Whilst this categorisation of emotions differs in some ways from that presented in Table 5.1, there are many similarities between them. In this way the categorisation developed for this current research study can be seen to map well onto other zoo visitor-based studies. However, the categorisations of emotion developed by Luebke et al. (2016) and Myers et al. (2004), in common with other zoo-based explorations of visitors' emotional responses, only describe visitors' emotional responses to the individual animals encountered at the zoo. As will be seen in this chapter, in this research study, in some cases, participants also expressed these emotions in relation to the conspecifics of those individual animals in the wild.

It should be noted that not all visitor units encountered the same animals. As identified in Chapter 4, each visitor unit (i.e. an individual, couple or larger group of family or friends visiting the zoo together), was solely responsible for deciding

where they went during the go-along. The routes taken through the zoo were often similar, but there was some variation. This was linked to a variety of factors, including: the desire to see particular animals; the weather on the day, which curtailed one visit; the energy levels of some participants; and timing of when I met up with the participants to start the go-along. The routes taken generally followed the most popular routes around the zoo, which were identified in the Paignton Zoo Visitor Experience Research Project at the zoo (Gurney, 2016). Taking the same route did not of course guarantee that the same animals would be encountered, which was also dependant on their location and visibility within an exhibit at any given time.

5.3 Factors influencing the emotional responses of visitors to encounters with animals at the zoo

The thematic analysis enabled participants' emotional responses to the animals they encountered to be placed into the relevant category of emotional response. Within each category of emotion, these responses were then analysed to explore and identify the underlying reasons given by participants for these expressions of emotion. Through this process, seven key factors, depicted in Figure 5.1, were identified as influencing participants' emotional responses during their encounters with animals at the zoo. Figure 5.1 shows that of these seven factors, three related to past experiences of animals and zoos, and four related to encounters with animals during the zoo visit.

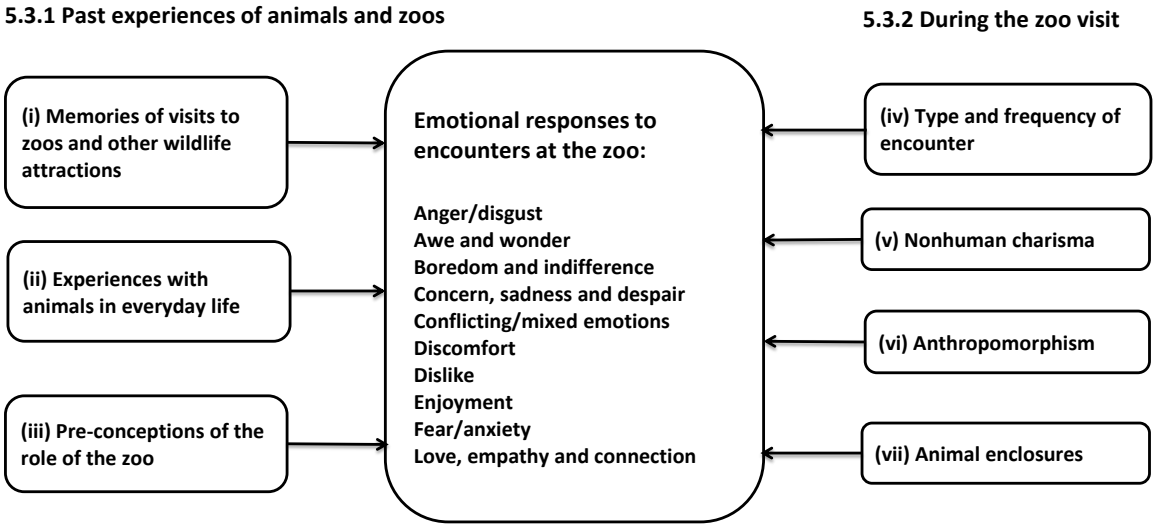


Figure 5.1 The seven key factors influencing emotional responses of participants to encounters with zoo animals during the go-along at the zoo.

Three factors related to past experiences travelled over time and space from outside the zoo boundary, before the zoo visit, to inform and influence visitors' responses during the visit: (i) memories of visits to zoos and other wildlife attractions; (ii) experiences with animals in everyday life; and (iii) pre-conceptions of the role of the zoo. In the moments of encounter during the zoo visit the other four factors also served to influence visitors' responses: (iv) type and frequency of encounter; (v) nonhuman charisma; (vi) anthropomorphism; and (vii) animal enclosures. Thus, it is evident that the emotional responses were not solely informed by the moment of encounter with the animal at the zoo, but often by an interplay of factors. The following sections describe these seven factors in turn, and explore their influence on participants' emotional responses, as told through the words of the participants. Where appropriate, verbatim quotes from interview participants are provided to illustrate and provide examples of the key factors. In addition, excerpts from my field work and research diaries are included to aid further reflection of the empirical data. Table 4.5 in Chapter 4 contains the demographic details and profile of each visitor unit and its constituent member(s), along with the pseudonyms used to refer to participants in this empirical chapter.

5.3.1 Key factors: past experiences of animals and zoos

It was evident from participants' encounters with animals at the zoo, that whilst they were describing their feelings during a momentary point of encounter during the go-along, these encounters were not "…free from history…" (Wilson, 2017 p.462), with past experiences informing the expressed feelings of the present encounter. This section identifies and explores how participants' responses were shaped by three key factors related to past experiences: (i) memories of previous embodied encounters at the zoo and/or other wildlife attractions; (ii) experiences of animals in everyday life – both embodied and through a range of media, including television and books; and (iii) participants' pre-conceptions of the role of the zoo.

5.3.1.1 Memories of visits to zoos and other wildlife attractions

During the go-along interviews it was very common for participants to share memories of previous encounters with animals at Paignton Zoo and/or other zoos and wildlife attractions. In recalling their stories, invoked by the encounter with a particular animal during the go-along, it was clear that some of these previous embodied encounters had created vivid, long-lasting memories of particular animals, species and also of the place of encounter. As Amy identified in relation to her young sons:

> *"They won't remember playing with their toys, but they'll remember going out, you know, to the woods and the zoo and things like that…" Amy, unit 9*

Sara also explained the ability and importance of embodied encounters in securing memories:

> *"…it makes it more real, rather than seeing it on TV, which is much more abstract and you can just forget about it." Sara, unit 1*

These memories can be understood as both sensory (visual and tactile), and emotional. Participants were able to recall not only details of the nature of the encounter, but also their emotional responses at this time, as described by Julie

(unit 12) during her time at Lemur Wood. This exhibit houses three types of lemurs – red ruffed, ring-tailed and the red-fronted lemur. On the day I visited with Julie and her family, all three species were clearly in evidence, either indoors behind glass or outside behind chain-link fences. As we entered Lemur Wood, Julie started to tell me how much she loved ring-tailed lemurs. Initially we passed by some red ruffed lemurs, clearly visible at the front of their glass-fronted enclosures. Apart from differences in colour, these lemurs are very much like the ring-tailed ones. Described as “fluffy”, “cute” and “cuddly”, both these species were perceived by other participants to have nonhuman charisma (Lorimer, 2007). Given this similarity, I was curious and somewhat puzzled that Julie showed very little interest in the red ruffed lemur. Clearly for her it was all about the ring-tailed ones. On reaching this particular species of lemur, with their characteristic long, fluffy black and white tails, Julie became very animated and excited, telling me how much she loved them.

Photograph 5.1 Encountering a curled-up ball of ring-tailed lemurs in Lemur Wood (author photograph).

As we stood together with her family watching a curled-up ball of grey fur and striped tails, Julie told me her story of her previous encounter with these animals a few years ago. She had won a naming competition for two baby ring-tailed lemurs at a local wildlife attraction. The prize was a feeding experience

with the lemurs, which Julie, with the help of one of her daughters, described vividly and with great feeling:

> *"It was amazing…it was just amazing, they came in and they would touch us, they were very very tame…" Julie, unit 12*

> *"You got footprints all over you…"Justin, unit 12*

> *" I did, it put its little fingers around my fingers and I had a dirty hand print on my leg [laughs]…it was just amazing just to have them, they were just running round us and just, we didn't move very much we had food and they took food from us, but they would just climb on us and just touch you and come up to you and touch you, it was amazing, it was one of the best things I've done." Julie, unit 12*

In this case the embodied experience was both a visual and tactile experience. Julie's very personalised encounter clearly had a significant impact on her emotions, which helped to explain why she had come to love this specific type of lemur so much.

Whilst zoos and wildlife attractions offer such experiences to their visitors, usually at an additional cost, they are not the most common way for people to encounter animals in these spaces. However, the more usual encounters with animals still have the capacity to create strong memories, which can inform future emotional responses. In the case of Heather's two children, both under ten years old, the rather well-known fascination of children with bodily functions had clearly made an impression on them. Their mother explained her children's enjoyment of seeing the ostrich at Paignton Zoo:

> *"…so we didn't come here last year, but we do tend to come most years…they like the ostrich cos that's forever engrained in their brain, the ostrich that wees!" [laughs] Heather, unit 13*

In a similar vein, the children's pleasure in seeing the great apes was somewhat influenced by a memory during a visit to another UK zoo. Explaining why she and her brother liked orang-utans, Kelly told me:

> *"They're funny. I remember them throwing poo at the window."*
> *Kelly, unit 13*

Within these generally more visually-based encounters, where there is no firsthand contact with the animal, the animal still has the potential to create a more multi-sensory based memory. On approaching the camel enclosure with Alice, in recalling her own childhood experience, she was very emphatic that she did not like camels, explaining her aversion very simply:

> *"When I was a child, I was spat at by one and that was it." Alice, unit 10.*

Whilst this had happened around 50 years ago, Alice was still not keen to go up to the front of the camel's enclosure:

> *"We don't get too close to those. Disgusting things!" [laughs]*
> *Alice, unit 10.*

Needless to say, we did not stay for very long by the camel enclosure, moving swiftly on to view the takin in the adjacent exhibit. As in Julie's case, Alice was using an experience in that moment of the go-along to recall a previous, multi-sensory engagement. However, unlike Julie and the ring-tailed lemurs, this was not one that she had actively chosen, and with a very different outcome in terms of the emotional memory created through the experience.

During the go-alongs, it was also possible to witness this emotional memory-making in action. Towards the end of the visit with Amy and her young son Mark, we reached the Rhea enclosure. This is a large area of grass and trees below the level of the public walkway, with a concrete wall along the front of the enclosure. One rhea was clearly visible, pecking at the grass in the morning sun. After a short while it started to approach the base of the concrete wall, so that eventually it was almost directly beneath us. Amy lifted Mark up so that he

could get a better view. Mark became very animated, and started to lean over and put his hand down towards the rhea:

> *"Wanna feel…I want to get down." Mark, unit 9*

Mark's mother patiently explained that this was not a good idea, but encouraged him to wonder what the rhea might be like to touch. Whilst keeping a close hold on Mark, Amy explained to me:

> *"It's these encounters that I like, cos this is the kind of thing that creates a memory, you know, you know 'D'you remember when we got this close to this animal?' " Amy, unit 9*

Photograph 5.2 Creating memories with a rhea (author photograph).

For most participants, their memories were linked to a particular species of animal. However, whilst less common, for some their memories had transferred from the animal to broader emotions about the place of the embodied encounter. In describing a family outing to another UK zoo, Rebecca and her family vividly recalled their upset and concern about a "sad bear", which they encountered, and which they perceived to be living in a small and rather barren concrete enclosure. It was evident that they would not go back to this wildlife attraction as a result of this experience. Whilst the issue of exhibit size and design in relation to emotional responses will be considered in detail in section

5.3.2.4, what is clear from Rebecca's family was that embodied encounters can also lead to place-based emotional memories.

In discussing their emotional responses to animal encounters during the go-along, it was evident that the emotions associated with these memories were able to travel over time and space beyond the boundary of the place of the previous encounter, conveying a sense of immediacy even up to fifty years since the encounter. In this way such memories were seen to influence and help to explain emotional responses of a number of participants at Paignton Zoo, in particular in relation to emotions in the categories of 'enjoyment', 'love, empathy and connection', and 'fear and dislike'.

It became clear during the go-alongs that participants did not only have encounters with animals through excursions to wildlife attractions. Animals also featured in other aspects of their lives, which also served to influence their emotions during encounters with animals at the zoo. These experiences of encounters with animals in everyday life are discussed in the following section.

5.3.1.2 Experiences with animals in everyday life

(i) Living with pets

The embodied experiences of living with pets can also play a part in informing emotional responses at the zoo. It was common for participants to be current pet owners, or to have had previous experiences of pet ownership at some point in their lives either directly or in their immediate family. For many, their love for, and an intimate knowledge of, the physical characteristics and behaviours of these pets helped to shape their engagement with particular species at the zoo. This was particularly prevalent with participants who had or had had domestic cats as pets. Watching the adult male lion Lucifer, Christina explained:

> *"I feel a connection because of my cats, my own cats, cos I love my cats and I can just see the way they walk, particularly, I've got a big grey cat called Morris and he walks and moves just like these large versions. They've similar characteristics, movement." Christina, unit 2*

Photograph 5.3 Moving like a domestic cat – Lucifer, the male lion, walking the perimeter of his enclosure (author photograph).

For Christina, her familiarity with domestic cats served to secure her feeling of "connection" to the male lion, which can be understood in terms of a relational engagement with this other species within the feline family.

Whilst less common, some of these domestic cat owners were also able to transfer their cat-based experiences to support their understanding and appreciation of very different species. One participant in particular used this knowledge in relation to both meerkat and rhino. As one of the rhinos rolled and wriggled around on his back, Frances observed:

> *"He's doing what Blackie does, Mr B our cat likes to roll in something he thinks is really tasty, oh yes!" Frances, unit 14*

As Paignton Zoo's animal collection includes three species of big cat (lion, tiger and cheetah), there was plenty of opportunity for domestic cat owners to experience and express a sense of emotional attachment and relating to these species. In contrast, although a number of participants were or had also been dog owners, the zoo only houses one species from the dog genus. The zoo's

maned wolf pack is rarely visible, and was only encountered once during the go-along visits. Therefore, it was not possible to see if similar emotional responses would have been made between domestic dogs and other members of the dog family.

During the go-alongs with families with young children, pet ownership was seen to help facilitate understanding and appreciation of different zoo animals. Whilst inside Crocodile Swamp with Rashmi and her family the crocodiles were, as was usually the case, lying motionless under some heat lamps. Rashmi's four-year-old son was curious as to why they were doing this, which she explained to him with reference to their own pet tortoise, Flash:

> *"Cos they're soaking up the heat and when they're hot enough then they'll have the energy, cos they're cold blooded darling...like Flash does in the kitchen, she just sits there, doesn't she and when she's finally warm enough she'll have her breakfast and she'll wander about a bit and she gets quite sprightly really, doesn't she. So he's just trying to stay warm."*
> *Rashmi, unit 3*

Photograph 5.4 Helping to understand crocodile behaviour via a pet tortoise (author photograph).

In addition to Crocodile Swamp, the zoo's Reptile House is home to a wide variety of other reptilian, and also amphibian, species. One participant, Heather, with a wealth of experience as an owner of snakes, was particularly enthusiastic about the species encountered in this section of their zoo visit. In explaining to me why she felt emotions of love towards the reptiles we saw, it was very clear that her embodied, multi-sensory engagements with her pet reptiles lay behind her emotional responses at the zoo:

> *"I just love how they feel, I love how they look, how they move, um, yeah I don't think they're scary at all, I know loads of people are scared of them." Heather, unit 13*

As described above, the emotional responses to animals mediated by experience of pet ownership, were primarily within the categories of 'love, empathy and connection', and 'awe, wonder and appreciation'. However, Heather also showed how pet ownership can lead to rather different responses to animals at the zoo. The Reptile house is also home to a number of small and colourful birds, including zebra finches and the superb starling. I noticed that Heather tended to flinch when these birds flew close by:

> *"…my mum had animals…she had loads of birds, but I just remember being irritated by the birds cos she used to put the aviary outside my bedroom window and they used to squawk every morning and so I don't do birds, I don't particularly like them much now." [laughs] Heather, unit 13*

Whilst this was unusual within the visitor groups, it is indicative of how living with animals in everyday life can also leave a less positive emotional legacy, which can influence emotional responses to animals encountered at the zoo.

An additional aspect of living with animals relates to how this might influence the enjoyment of encountering animals at the zoo. In talking about their experiences of living with animals, many participants were keen to tell stories of past and present pets, some sad and moving, others funny and entertaining. Whatever the nature of their experiences, what was apparent was the enjoyment derived from sharing their lives with a range of domestic animals, from cats and dogs to guinea

pigs, rabbits and reptiles. This research did not specifically explore the possible links between enjoying animals at home and the enjoyment derived from encountering animals at the zoo. However, from the material presented here, it seems reasonable to suggest that the enjoyment of animal encounters at the zoo may be mediated by embodied experiences at home.

(ii) Cultural referencing to animals

This chapter argues the centrality of embodied encounters in understanding participants' emotional responses at the zoo. However, for a number of participants, encounters with animals through a variety of media, including television, books and films, also played a part in mediating the nature of their emotions during the embodied encounter. Encounters through this range of media can be understood as virtual, following the work of Davies (2000) described in Chapter 3, Section 3.3.3.2, which are limited to visual experiences, and are in contrast to embodied experiences, which enable a corporeal, multi-sensory engagement with the animal.

Although this was not observed so commonly or frequently as pet ownership amongst participants, cultural references to animals in television, books and films were invoked at times by some participants to help explain how they experienced their encounters with animals at the zoo.

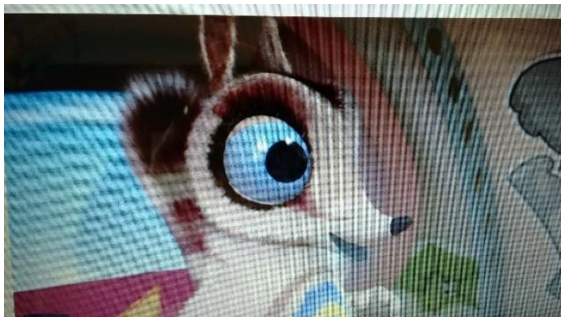
Books and films remembered from childhood or earlier adult life were recalled by several participants in their encounters at the zoo. In making sense of her long-standing enjoyment of lions, Karen explained how watching the adult male lion during the go-along invoked memories of childhood reading:

> *"I kinda think back to 'The Lion, the Witch and the Wardrobe' and Aslan and I would just love to hug a big maney lion." Karen, unit 4*

For Jennifer and Christopher, their enjoyment of the organ utans was linked with their memories of the 1978 film comedy 'Every Which Way but Loose', where the main protagonist is accompanied on his exploits by his pet orang-utan, Clyde. In Christina's case, enjoyment of the orang-utans was enhanced from watching the film of Rudyard Kipling's 'The Jungle Book'.

Whilst these cultural references date back to the mid/late 20th century, those from the present day can have a similar effect, as in the case of Jane's grandchild. Jane told me how much their young grandchild enjoys watching the coatis, which was interesting as during the go-alongs, many of the adult participants had tended to walk past or only spend a moment with these stripy-tailed, medium sized members of the raccoon family. Jane explained:

> *"There was a children's programme called Numtums, which did early maths, and they were just like these. So that's how [grandson] related to them." Jane, unit 11*



Photographs 5.5 and 5.6: From left to right, virtual and embodied encounters with a coati (author photographs).

Whilst no cultural references were invoked in relation to emotions such as dislike and sadness, knowledge gained through television programmes and social media regarding hunting and poaching of animals did have a significant impact on two participants from different visitor groups. Both Patrick (unit 14) and Bruce (unit 12) expressed feelings of anger and disgust towards human actions during their encounters with the rhino, elephant and lion:

> *"I think the way they go about hunting the animals for their skins you know elephants for the ivory and stuff like that I think it's just ludicrous...the rhinos and they just kill them unnecessarily just to get that one trophy you know, we've seen them on Facebook, people going on safaris and holding up a dead lion's*

head, and I'm thinking you know 'What's so good about that?'...I think that's just people with money buying a thrill, and I don't see it as a thrill, I see it as being quite disgusting." Bruce, unit 12

This section is indicative of how the emotional responses of participants' in some encounters were the result of a cognitive memory connected to a particular animal. Whilst the embodied encounter at the zoo acted as the prompt or trigger, the emotions expressed related to their cultural referencing of these animals.

5.3.1.3 Pre-conceptions of the role of the zoo

Zoos provide a particular setting for embodied encounters with animals. As described in Chapter 3, historically their ability to deliver this type of experience was primarily promoted and understood in terms of providing a spectacle for entertainment. However, through a paradigm shift in more recent times the aims of the modern zoo have widened to include education and species conservation, the latter through research and captive breeding programmes. Within their responses, many participants acknowledged the modern-day role of the zoo in relation to education and conservation. However, the colonial antecedents of the zoo, discussed in Chapter 3, were at times in evidence, as participants discussed the importance and enjoyment which they attached to seeing primarily exotic, endangered species from geographically remote locations. Thus, a mixture of pre-conceptions of the roles of the zoo served to influence the emotional responses of some participants in a variety of ways. These are described in the following three sections.

(i) The zoo as a site of entertainment

The role of the zoo as a place of entertainment is very culturally engrained, and as highlighted in Chapter 3, remains a central element of the mission of the modern zoo. For a number of family groups their visits to Paignton Zoo and/or other wildlife attractions are an established part of their annual holiday itineraries. For members living close to Paignton Zoo, their regular (at least

monthly visits) were an enjoyable, social activity. Alice a local resident and zoo member expressed:

> *"There's always that sort of excitement about coming to the zoo, you know even though I do it on a weekly basis it's just sort of, it's exciting 'Who are you going to see today and what are they going to be doing?'" Alice, unit 10*

Given this pre-conception of the zoo visit, it was unsurprising that all visitor units frequently expressed emotions of enjoyment, expressed as happiness, pleasure and excitement in relation to seeing the animals. However, for a number of participants, their broader understanding of the role of the zoo served to influence their emotions in other ways.

(ii) The zoo as a site of education

The majority of the emotional responses captured during the go-along interviews were from discussion with participants about how they felt about the animals they encountered. In addition, for those visitor units with children under five, I was also able to observe parents' emotional responses to animals as they interacted with their young children. Parents of all these visitor units identified that they were at least in part motivated by the educational potential of the zoo visit, and the opportunities for their children to appreciate and learn about primarily exotic, endangered wildlife.

During the go-alongs these parents were very pro-active in engaging their children with the animals through: observation; encouraging verbal and/or physical interaction; and encouraging verbal imitation. Allied to this, the general tone of the adults was one of enthusiasm and encouragement.

Amy and her young son Mark, who come very regularly to the zoo, enjoyed several encounters during our visit. Early on we saw all five of the lions out in the autumn sunshine. Amy's voice became very animated and excited as she proceeded to encourage Mark to observe and imitate the lions:

> *"Look at that Mark! Can you see all five of them?! Where's daddy lion? Right at the back isn't he. What was he doing last*

time we came? Roaring! And what did that sound like, can you do a roar?" Amy, unit 9

"Roaaar!" Mark, unit 9

"Roarr! That's it!" [laughs] Amy, unit 9

As the go-along proceeded, Amy was clearly keen to engage and enthuse Mark with a wide range of animals, including the great argus pheasant:

Photograph 5.7 Crouching down to get a good look at a great argus Pheasant (author photograph).

"What colour is it's face Mark? What colour face does he have? Blue!" Amy, unit 9

"Blue." Mark, unit 9

"Blue face, yeah. Beautiful, say "Hello!" to him?" Amy, unit 9

"Hello." Mark, unit 9

"Good lad, well done." Amy, unit 9

In this way the zoo visit was an opportunity for parents to model emotional responses to animals for their children. From the young families observed, emotions in the categories of 'enjoyment' and 'awe, wonder and appreciation' were the most commonly displayed. The embodied nature of the zoo visit was

appreciated by all these parents in helping to facilitate their children's engagement and appreciation of animals. As described above, this embodiment included visual, vocal and auditory aspects. In explaining her appreciation of the zoo as an educational resource for her young daughter, Frances also referred to the engagement with the olfactory system:

> *"It helps her interaction and her understanding and not just a picture of something little in a book, she actually understands their size, how they move, what they smell like. Cos the smell as well like the rhinos and the elephants when you get close to them the smell that they have, it's not a cow!" [laughs] Frances, unit 14*

(iii) The zoo as a site of wildlife conservation

The way in which participants understood the conservation role of the zoo was also seen to influence their emotional responses during a zoo visit. The main source of emotions in the categories of 'concern, worry and sadness' and 'mixed emotions' at the zoo arose through the captivity and confinement of animals during the visit. As described in sections 5.3.2.3 and 5.3.2.4, this was primarily linked to perceptions of animal well-being and concerns about animal enclosures. However, some visitors also linked their concern about captive animals to the role and purpose of the zoo, although the nature of this narrative varied between different participants. Whilst several members of Paignton Zoo and other UK zoos did express some concerns about keeping animals in captivity, this was commonly ameliorated by their feelings about the role and value of the zoo in animal conservation:

> *"It's difficult, sometimes I kind of think it's a bit mean them being sort of cooped up, um in quite a small area…. but I think it's important for research and stuff and learning how to help them in the wild and stuff as well, and also for breeding programmes for those rare animals as well, it is, zoos do an important job really." Karen, unit 4*

Whilst Frances and Patrick (unit 14) were not zoo members, they enjoyed regular trips to zoos and other wildlife attractions and showed a good basic

understanding of the role of zoos in breeding programmes. Although they too expressed concerns about holding animals captive in zoos, such emotions were reduced by their belief in the importance of these programmes in efforts to conserve endangered species.

In contrast, a few participants, such as Rashmi, who were neither zoo members or regular zoo visitors, expressed less knowledge or certainty about the conservation role of the zoo. In these cases, the feelings of concern were not mitigated as they were for Frances and Patrick:

> *"….sort of mixed feelings about zoos in terms of the conservation versus the effect on the animals and I just don't know, I don't know enough about it to sort of have a very informed opinion, but I do sort of, yeah especially the primates and things that it seems a bit of an odd thing to do, to keep primates in cages, well anything, lion…" Rashmi, unit 3*

This suggests that a better understanding of the conservation work of the zoo may help to reduce visitors' concerns or sadness about their embodied experiences with captive zoo animals. Section 5.3.2.4 identifies how some level of concern is a relatively frequent part of visitors' encounters with animals at the zoo. When visitors are confronted with a large number of animals held captive and confined within enclosures at the zoo, certain pre-conceptions and understanding can help to reduce this concern. However, even for zoo members, there may also be a level of irresolvable tension between the two, as was the case for Angela:

> *"…gorillas' lives are so complex in the wild and I think they miss, but selfishly I love to see them and I do feel that's a bit of a conflict. So it's hard cos I'd hate not to see one again, but equally I do think they're missing out, however much enrichment you give them and try to encourage natural behaviour." Angela, unit 15*

It is important to note that Angela's concerns were focused on a particular species which, unusually amongst the participants, she had also experienced in

the wild. However, it was not possible within this research to explore further how experiences of animals in the wild might influence their emotional responses to their conspecifics (i.e. animals of the same species), in the zoo.

This section has sought to describe the main factors before the moment of encounter with animals during the go-along, which were seen to influence emotional responses during these encounters. This has revealed that previous embodied experiences with zoo and other animals, allied to virtual animal encounters, and various pre-conceptions about the zoo as a place to encounter animals can shape participants' emotional responses during the zoo visit. The vivid memories of previous encounters with animals at the zoo has given a small insight into the potential for these embodied experiences to elicit strong emotional responses. In turning to the zoo visit itself, the following section describes in more breadth and depth how different aspects of this experience served to influence the participants' emotions during the go-along interviews.

5.3.2 Key factors: during the zoo visit

The essence of the zoo visit is centred on embodied encounters with a range of primarily exotic and endangered species, which most visitors are unlikely to ever have the opportunity to see in the animals' natural habitats. This section considers in turn the four main factors which were seen to influence emotional response during participant-animal encounters. As per Figure 5.1, it starts with a consideration of the type and frequency of the encounter and then goes onto consider nonhuman charisma and anthropomorphism. It finishes with an examination of the animal enclosures, which provide the visual frame within which these encounters occur.

5.3.2.1 Type and frequency of encounter

(i) Type of encounter

It was very common for participants to express how much they valued the embodied nature of encounters with animals at the zoo. This value was predominantly identified in comparison with their two-dimensional, virtual encounters with wildlife in television programmes. Whilst participants enjoyed

watching these programmes, these were not seen to deliver the same type of engagement as they experienced at the zoo:

> *"It's all very well seeing pictures on the TV, which is lovely to watch, those sorts of programmes, but to actually see an animal has got more impact than anything on a picture or a TV screen." Alice, unit 10*

For these participants the value of the embodied encounter was bound up with the ability to get close to the animals. Participants commonly used words such as "exciting", "special" and "lovely" to describe their emotional responses to such encounters, which served to enhance their enjoyment of the zoo visit. During the go-along with Andrea, we spent some time at the start of the visit watching the pygmy marmosets which, on a cold autumn morning, were in their inside quarters busy munching away on some cheerio-shaped snacks. One of them was perched on a branch, close to the glass front of the enclosure:

> *"Yeah, we love it, we love it. My husband is the same as I am, we, it's lovely to be that close isn't it, really". Andrea, unit 6*

There was also a recognition of how being in such close proximity and sharing a space with an animal at the zoo (which would never otherwise happen), could help participants to engage beyond the visual to provide a more sensorial experience of the animal. Such close-up encounters enabled participants to experience the physicality of the animals' presence, and it was common for them to express emotions in the category of 'awe and wonder' in response:

> *"I think it's the absolutely beauty of their [great grey owl] feathers and all the colours, and seeing them close up is really special." Kenneth, unit 11*

> *"I think it's kind of awe in a way, like I said about the lions you'd never get to see these lions other than, or any kinds of animals, other than on TV really, so it's pretty amazing really that you can get so close, even though we've been coming so regularly for a few years it's still fascinating that you can get so close and see them." Karen, unit 4*

These emotional responses were commonly linked to participants' appreciation of these animals:

> *"And it's an element of just appreciating their scale and their capabilities and I think with the big cats as well it's the strength, you can't really see that on television, you can't see that in a book, it's appreciating what they're actually capable of". Amy, unit 9*

> *"…the closer you can get obviously the more you can appreciate what they feel and what they look like, and the noises that they make…" Christina, unit 2*

For some the physicality of certain animals also proved to be an unnerving experience, eliciting emotions of fear and anxiety. Encounters with the male gorillas were most common in this regard. All four of the gorillas at Paignton Zoo are fully grown males with an average weight of 186.75kg (H Farmer 2019, personal communication, 11th March). The time I encountered these gorillas with unit 2, one of the them was moving purposefully and quickly around this area, coming up close to us at the glass partition, which caused Christina to explain that she felt:

> *"…anxious and a little bit frightened by him, the size of him, the size of his head." Christina, unit 2*

The close proximity of encounters with animals afforded at the zoo was important for some participants in helping to secure a sense of intimacy, which went beyond physical closeness, to encompass a "connection", which can be understood as relational engagement between participant and animal, as described by Deborah, when comparing her experience at the zoo compared with that at safari parks:

> *"I think for me it's probably about the intimacy you can have with them because you know you can get closer to them, um, you know at a safari park they're often off in the distance you*

know, and you don't have that connection with quite so much I don't think". Deborah, unit 15

Photograph collection 5.8 A variety of close-up encounters at the zoo - clockwise from top left: orang-utan; ostrich; red ruffed lemur; red river hog (author photographs).

For a sub-set of these participants, this relational engagement with the animal at the zoo was able to extend beyond the zoo boundary to the conspecifics of that animal in the wild:

"Once you get that emotional bond to something you start to understand the animal on a whole different level. It just puts it

that more real to you doesn't it when the animal's this close to you and then you actually start to think you know about the environment where they live and what's gonna happen, you know." Kenneth, unit 11

In this way the emotions experienced at the zoo acted as a bridge to geographically remote animals, helping participants to feel and think beyond the zoo boundary, to the lives and habitats of these conspecifics.

As identified in section 5.3.1.1. zoos can offer a range of animal experiences which can further enhance the close-up nature of animal encounters, enabling visitors to feed, potentially touch and spend time, one to one, with animals in their enclosures. As Julie's experience with the ring-tailed lemur in that section indicates, this particular form of embodied encounter can be very memorable, and serve to secure a particular affection for a certain species. Some zoo members described how such experiences had helped to extend their emotional responses beyond the boundary of individual animals encountered at the zoo, to the conspecifics of that species in the wild.

During the go-along with unit 15, we spent some time standing on the outside viewing platform watching Duchess the elephant. Angela described with great enthusiasm how she had had a feeding experience with some elephants at another UK zoo. She laughed as she told me how "…*you get elephant snot all over your hands*...." Asking her what that was like as an experience, she explained:

"…it builds your relationship, your feelings about them, don't it, something instead of being an abstract thing in Africa that's getting killed for its tusks, it's something that you've actually touched." Angela, unit 15

In this way, facilitated by the close-up, sometimes multi-sensory nature of embodied experiences afforded by the zoo visit, these participants had moved beyond the spectacle of seeing the animal at the zoo, and had entered into a more relational engagement with the animals they saw. As identified, this type

of relational engagement with the zoo animals' conspecifics in the wild were expressed by members of either Paignton or other UK zoos. As the following section reveals, the frequency of such visits was highlighted by these participants as important in helping to secure this relational engagement.

(ii) Visit frequency

Zoo members described how repeated (at least monthly) embodied encounters helped them to develop their relational engagement for both the individual animals at the zoo, and their conspecifics in the wild, which they described in terms of "love", "care" and "affinity". Whilst watching the orang-utans in the Ape House, all members of unit 15 talked with great enthusiasm about their regular encounters with great apes. This was typified by Diane, describing her encounters with orang-utans at another UK zoo:

> *"…I used to spend hours sitting with her (a specific orang-utan), so that's why I just love orang-utans, because I spent a lot of time looking at her and her looking at me…" Diane, unit 15*

Angela, also from unit 15, went on to explain how these relational engagements forged at the zoo now extended to geographically remote orang-utans in the wild:

> *"…cos you care about these animals [at the zoo], you want to care about the whole species, so we've found out so much about chimp conservation, orang conservation, the palm oil issues, deforestation…" Angela, unit 15*

This sense of relational engagement with the animal at the zoo as a pathway to extending these emotions to the conspecific of that animal in the wild was also expressed by Paignton Zoo members in relation to Duchess the elephant and the pair of breeding rhinoceros. Amy, unit 9, described her relational engagement with individual animals at the zoo and their conspecifics in the wild in empathetic terms. For her it was evident that the extension of her emotional responses to geographically remote conspecifics extended to encompass a wide range of species:

"…I think because we have an affinity with them [animals at the zoo], we have an affinity with them now as we see them so frequently, and even though those animals are nicely protected and safe in the zoo, their species, their kin are endangered in the rest of the world". Amy, unit 9

In this way frequency of the embodied encounter can serve to strengthen the relational engagement between visitor, animals at the zoo and their conspecifics in the wild, as the embodied experience is repeated and reinforced over time. However, whilst very unusual, visit frequency was also seen to lead to the very contrasting emotions of boredom and indifference for Anthony. He had visited Paignton Zoo regularly as a child, and now came with his family as part of their summer holidays:

"I think you've seen them for so many years you just want them to do something that bit more interesting, cos it's the same thing isn't it." Anthony, unit 13

5.3.2.2 Nonhuman charisma

As described in the previous section, embodied, in particular close-up encounters, were important in influencing participants' emotional responses. This section explores how these responses were also shaped by the agency of particular animals in relation to it being perceived as having or exhibiting nonhuman charisma at the moment of encounter.

Nonhuman charisma, in particular aesthetic charisma, as defined by Lorimer (2007) and discussed in Chapter 3, was seen to trigger strong emotional responses in many participants. This charismatic effect was the most commonly recurring factor in eliciting emotions in the categories of 'love, empathy and connection', 'fear/anxiety', and 'dislike'.

With regard to emotions in the category of 'love, empathy and connection', these were elicited in a number of participants through encounters with: gorilla; orang-utan; tiger; red panda; and lemur. A mixture of the perceived charismatic

aspects of these species were observed to influence participants' emotions, including: size; behaviours; and the colour and texture of the animal's fur.

An overall sense of cuteness and cuddliness was common for both the red panda and lemurs:

> *"Well the red panda's a bit like a cuddly toy isn't it? It's the sort of thing you put on your pillow! [laughs]. Maybe that's not the way to look at it! But it is, isn't it, it's, you just look at its face and you're sort of "Awwwww" [laughs]. And its colour's all nice and warm as well, isn't it? Gives you a warm feeling." Alice, unit 10*

In comparison the gorilla's charisma was experienced in a very different way by Bruce:

> *"…they're just fabulous to look at, they're just so, for their size as well they move really fluid, really graceful and they're just brilliant, I love them." Bruce, unit 12*

For Amy, aspects of size, cuddliness and behaviour were bound up with the age of the animals, as was evident as we watched the two lion cubs interacting with each other:

> *"…it's just seeing cubs play as well, I've always absolutely loved to see the cubs playing together and the way they always look like they're gonna really give them a good smack, but they're actually perfectly fine and happy. Um, big paws, I absolutely love their big paws, gorgeous! But yeah they're just the cuddliest things that can also do quite a lot of damage, a bit like a kitten! [laughs]." Amy, unit 9*

The charismatic effect of the great apes and monkeys was also related to, and in some cases enhanced by, perceived similarities in their physical characteristics and/or behaviours in comparison with humans. As was often the case when visiting Baboon Rock with participants, Rebecca and her family spent quite some time watching the large colony of baboons, which could often

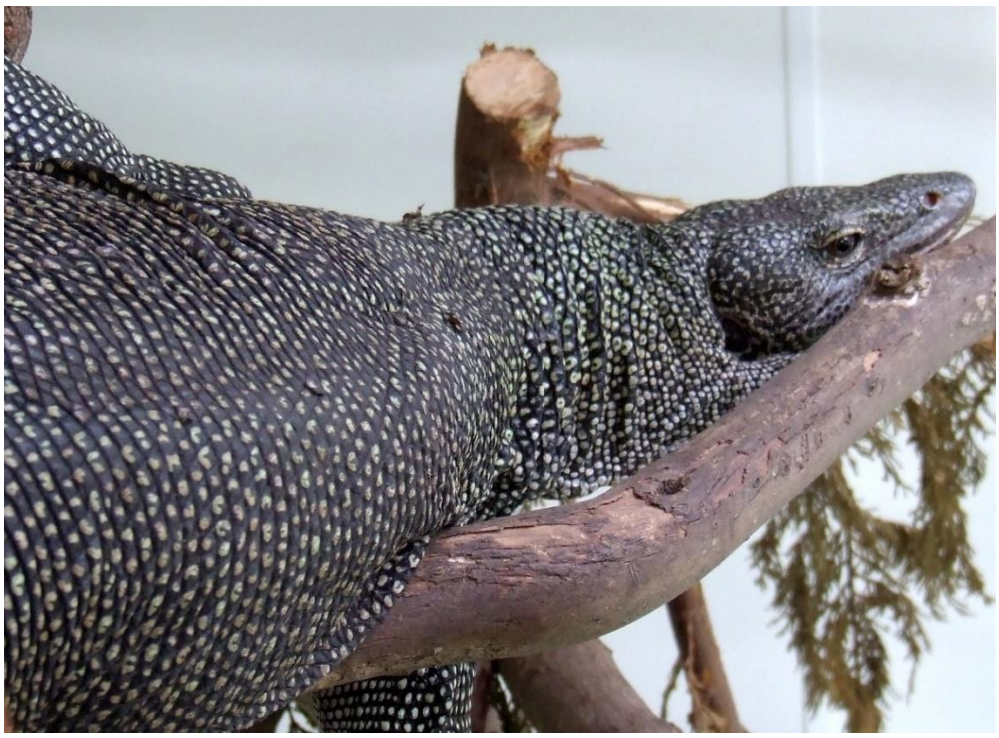
be seen interacting with each other in various ways: grooming; chasing; vocalising; sharing food; and huddling close together.

Photograph 5.9 Putting themselves in their shoes – participants watching interactions between baboons (author photograph).

> *"It's like you could look at this [baboons] and put any family in one of those situations thinking 'I know those people'."*
> *Rebecca, unit 5*
> *"You can identify with what they're doing?" Researcher*
> *"Yeah, because they're close to what we are as humans, you know, just easy to relate to them I guess…" Rebecca, unit 5*

Other species, in particular a range of reptiles and arachnids triggered equally strong, but negative emotional responses. Visits to the Reptile House with three visitor units elicited feelings in the categories of 'dislike' and 'fear/anxiety'. During Laura and Christina's visit, they encountered a large monitor lizard sitting close by, and in full view:

> *"That is horrible!" Christina, unit 2*
> *"I see you crossed, folded your arms there! What's horrible about it?" Researcher*
> *"It's evil. It's like something from a sci-fi movie, it's unreal. What is it?" Christina*
> *"It's very, very weird." Laura, unit 2*



Photograph 5.10 Monitor lizard in the Reptile Tropics exhibit (credit: Paignton Zoo)

A monitor lizard is implicitly neither “evil” or “weird”. However, it is likely that this reptile’s alterity in relation to mammals and/or the cultural representations of reptiles, which do not tend to cast this class of animals in a particularly favourable light, served to influence Laura’s and Christina’s emotional responses. Laura went on to describe how this alterity served to limit her concern in relation to the wellbeing of this lizard, and to preclude an empathetic emotional response:

> *“I don’t feel so concerned about them as I do about these other animals that seem more, well they’ve got eyes like ours and you can sort, I suppose you actually, you give them sort of emotions…and you can sort of imagine that they’re feeling like that because you feel some sort of affinity. I don’t feel any affinity with something that looks like that…”. Laura, unit 2*

5.3.2.3 Anthropomorphism

Unlike the participants’ virtual encounters with the conspecifics of zoo animals in wildlife television programmes, there was no audio track to accompany their

encounters to provide a verbal narrative within which to frame and understand the encounter. Although the zoo does provide a series of talks about certain species each day, it is generally the norm that there are no zoo staff or volunteers in the vicinity of the animal exhibits. However, anthropomorphism was used by many of the participants during their encounters to provide their own narratives as to how they were perceiving what they saw. This attribution of human traits, emotions or intentions to the zoo animals served both to enhance participants' enjoyment and at times to trouble their emotions. This section firstly considers the more pleasurable emotions and then goes on to illuminate how the same process can be linked to very different emotional responses.

Whilst anthropomorphism was most commonly utilised during encounters with one of the young orang-utans and the family of lions, it was also used in relation to a wide range of other species, including monkeys, lemurs, reptiles, birds and the red panda. During their encounter with the Malay fish owl, unit 5 became intrigued with this owl's prominent patches of feathers on its forehead and above its eyes:

"A Malay Fish Owl." Rebecca

"It's an Eyebrow Owl." Rose

"Eyebrow Owl." Rebecca

"Has it got big eyebrows?" Researcher [approaching owl exhibit]

"Yeah like him [her dad]! Rose [laughs]

[laughs] Rebecca

"Thanks!" Naresh

"Or grandad." Rose

All: [laugh] unit 5

Photograph 5.11 An "eyebrow owl" – the Malay fish owl at Paignton Zoo (credit: Paignton Zoo).

In addition to ascribing human-like physical traits, participants derived a great deal of pleasure from attributing thoughts and intentions to the activities they witnessed animals engaging in. A particular source of enjoyment was encounters with one or other of the young orang-utans, aged about two and three years old. They were often seen playing with items in their indoor quarters, ranging from cardboard boxes, sticks, bedding materials and hessian sacks. When Sara was observing one of these young animals, they were being very active, climbing and rolling around, and she was keen to engage her young son Thomas in watching them:

> *"…at the end of the day they're no different from humans, the way they're walking, grabbing hold of things. 'Look at this one down here [talking to Thomas], look, holding on with his feet!' That's the way to do it! It's interesting with Thomas because at the moment at home all he wants to do is climb on anything and everything…" Sara, unit 1*

During the go-alongs, through the eyes of participants, I also witnessed a ‘meditating’ gorilla; an ‘indifferent’ speckled pigeon; a ‘philosophical’ crocodile; a ‘litter-picking’ black hornbill; and a tiger ‘plotting’ to have a pelican from the nearby lake for its lunch.

The nature of the activities that the animals were engaged in at the time of the encounters was also the most commonly observed influence on how the visitors perceived the wellbeing of that animal. It was in this arena of emotional projection where participants experienced more varied emotions, at times troubling and of concern to them. Jennifer and her family spent some time watching one of the male gorillas playing with a blue plastic container and a ball, pushing them round and chewing on them. Jennifer explained how she derived a great deal of enjoyment from watching the gorilla play in this way:

> *“…when they’re playing and that, you can see that they’re happy and yeah….and when they’re playful you can sort of see you know they’re enjoying their time here, aren’t they”. Jennifer, unit 8*

Photograph 5.12 A “happy” gorilla with his blue plastic ball (author photograph).

In contrast, the day that Laura and her friend encountered the gorillas, all three of them were sitting relatively motionless in their indoor quarters. For Laura, this aroused emotions of concern for their wellbeing, as she felt that the gorillas did

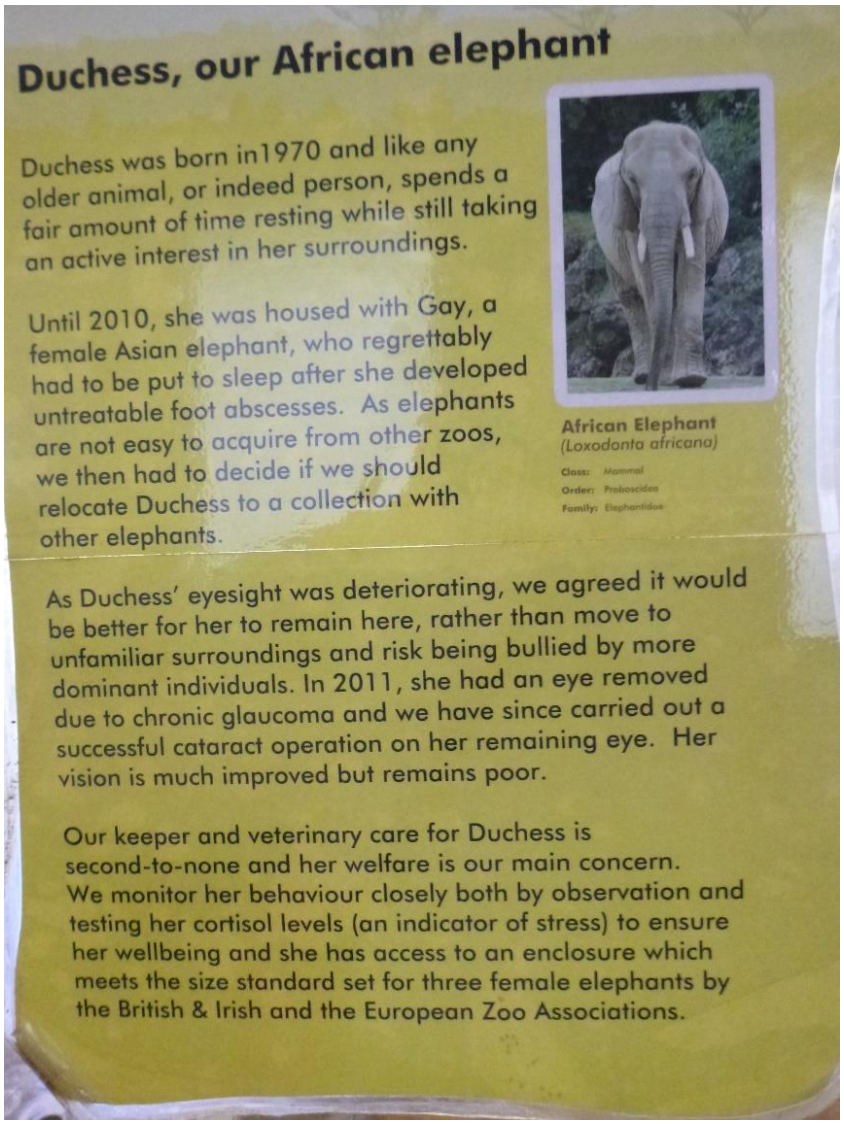
not look very happy. However, in reflecting further on her concerns, she did acknowledge the potential for the animal's activities to influence how she felt:

> *" I think there's something easier about watching animals that seem to be sort of playing a bit, isn't there, rather than when they're sort of contemplating, you feel a bit 'Oh what are they, what are they', not what are they thinking but 'Is their mood a positive or a negative or'…?" Laura, unit 2*

In this way the behaviour of the animals in the zoo was seen to act differentially over time to influence visitors' emotional responses, depending on the behaviours they were engaging in at any given time. Unlike a virtual encounter via a wildlife programme, where the animal is framed by a camera lens, the embodied encounter affords the participants the chance to see through their own eyes, with potentially differing emotional responses, dependent on the timing of the encounter.

Given this temporal aspect of animal encounters, zoo members who visit regularly potentially have the opportunity to experience a wide range of animal behaviours. Indeed, during the go-alongs they often recounted stories of what particular animals were doing on a previous visit. In comparison, one-off or infrequent visitors only experience a snap-shot of the animals' behaviours. Whilst it was not possible to explore this in depth, it is of interest to note that more of the non-member visitor units expressed concerns about the wellbeing of a number of species (lemur, macaque, tiger, gorilla, and elephant) based on the actions of these animals at the moment of encounter. In contrast the members only expressed concern and unhappiness in relation to the tigers, specifically when they observed them pacing. This type of activity was understood by both members and non-members to be an expression of boredom or stress. Referred to in zoological terms as stereotypic behaviour, this has been well documented in the public domain, so it was perhaps not surprising that all visitors responded as they did. However overall, visit frequency may be important in influencing perceptions of animal wellbeing based on behaviour, leading to less concern and unhappiness in comparison with occasional or one-off encounters.

There was a clear and repeated contrast in emotional responses between members and non-members of Paignton Zoo to the perceived wellbeing of the Zoo's solitary elephant, Duchess, who has lived at Paignton Zoo since 1977. It was common for participants to express emotions of concern or sadness for this individual, but there was a marked difference in the way these emotions were framed and experienced. Photograph 5.13 shows one of the information documents attached to the glass fronting of Duchess' indoor quarters, providing an explanation to visitors about Duchess' appearance, eyesight, and behaviour, why she is solitary and the care she receives from the zoo.



Photograph 5.13 Providing information to visitors about the care and welfare of Duchess the African elephant (author photograph).

I visited Duchess with the majority of members and non-members. Her enclosure is positioned next to a small herd of giraffes at the top end of the zoo. Whilst expressing sadness that Duchess was now alone (all having known her during the time when her companion Gay, an Asian elephant had also been alive), the members all expressed emotions of love and empathy towards her. Seeing her repeatedly over the years had enabled them to gain an understanding and appreciation of this animal's particular circumstances, and they had clearly formed an emotional connection with her. Discussing the issue of her solitary existence, Alice felt the zoo was providing a sanctuary, akin to looking after an elderly relative in a retirement home:

> *"Well you just think of yourself as being a little old lady, you know, and you're put in with a herd of youngsters that are all charging around you and everything, would you really want that or would you like to have a nice peaceful life just plodding around with a few giraffes to talk to. I think I'd go for the giraffes, wouldn't you?" Alice, unit 10*

In contrast non-members repeatedly expressed emotions of concern and sadness in response to Duchess, particularly in relation to her solitary existence. Whilst I was not with Steven and his family when they saw Duchess, Steven was keen to stress to me at the post visit interview how concerned and unhappy he felt at this encounter:

Photograph 5.14 Duchess the African elephant in her indoor quarters (author photograph).

"…I was quite sad after you left, cos we walked up to the elephant and there was just Duchess in there on her own. I actually found that, I found that disappointing that the zoo's got one elephant there on her own…because I thought that she was just wandering around on her own." Steven, unit 1

This clearly links to the issue of visit frequency described in section 5.3.2.1. and is again indicative of how it was seen to shape the emotional responses of different participants.

However, even where more than one participant witnessed the same animal behaviour during the same moment of encounter, this did not necessary elicit the same perception of the animal's wellbeing or emotional response from participants. Excerpt 5.1 from my fieldwork diary describes how differently Frances (unit 14) and I perceived our encounter with some black-crested macaques.

Making our way up past Monkey Heights, three black-crested macaques were visible close by the fence. Three of them were sitting in amongst the tall grass and flowers, a relatively shaded spot on this hot August day. It was fascinating to watch how dextrous their fingers were as they picked through the grasses and flowers, appearing to pick out seeds, which, after some further consideration, they ate. On a couple of occasions, a small insect (not sure what exactly!) flew past a little above the macaques' heads. Catching the eye of one, it proceeded to watch the movement of the insect, and when it came close enough, it made a rather lazy gesture towards it – seemingly a half-hearted attempt to catch it. My sense as I watched the macaques with Frances was that they were pretty content in their activities, engaging with what in zoo parlance is called 'natural enrichment'. I felt an emotion I would express as happiness and pleasure in this encounter, as it was both enjoyable and interesting, and I was not concerned about the wellbeing of these animals. After a short while I asked Frances how she was feeling. I was pretty surprised to hear how differently she was interpreting and experiencing this encounter. She felt concerned, as she felt the macaques looked bored:

"Well they're just sort of sitting around doing not very much, I mean I suppose it's hot but you know they need something really inspiring to like sort of catch their attention. If you went in there with a bowl of peanuts or something, or something they haven't seen before cos they really like things they've not seen before like a bright orange football or something and then that changes what they do and then they sort of explore it you know…hang different things off the bars or something that they might find really fun." Frances, unit 14

Excerpt 5.1 Describing my encounter with some black-crested macaques in the company of visitor unit 14 (author photograph).

In this instance my interpretation of the macaques' behaviour and associated wellbeing was at odds with that of Frances. She expressed some particular understanding and/or expectations regarding how an animal such as a

macaque would be enjoying itself, and as these were not being met, this invoked a very different emotional response from mine. In contrast, and although with very little knowledge about their behaviour in the wild, I felt that the macaques were doing something that I perceived to be a natural type of behaviour.

Reflecting further on this particular encounter, I wondered if as a keen amateur naturalist, and having spent the past two years closely engaged with the work of Paignton Zoo, it might be expected that I may have had better sense of what might be understood as a typical or natural behaviour for certain animals in comparison to Frances? Although my data do not allow me to respond to that question, a conversation with Janice and Diane from unit 15 was indicative of the role that knowledge and familiarity with particular species can play in interpreting animal actions and influencing emotional responses. As members of, and regular visitors to, another UK zoo, they expressed frustration to me from their own observations of other visitors' perceptions of animal wellbeing from other zoo visits:

> *" 'Oh that animal looks sad'. I'm sorry it's a lion, it's lying about, it's what they do." Janice, unit 15*

> *" 'Oh the orang-utans always look sad, cos I haven't read the sign that says their muscles are too floppy for their face.' They're not sad!" [sounds exasperated] Diane, unit 15*

In exploring emotional responses with regard to animal wellbeing, these were not limited to the agency of the zoo animal. The nature of the embodied encounter at the zoo necessitates the animals to be captive and confined in some way, the influence of which on participants' emotions is explored in the following section.

5.3.2.4 Animal enclosures

As identified in section 5.3.1.3, an inevitable aspect of the embodied experience of animals at the zoo is that the encounters take place with animals which are captive within the boundary of the zoo and confined within the boundaries of

their enclosure. The enclosures are a central element to the zoo visit, providing the frame within which the visitor can observe the animal. The nature of these enclosures, specifically in relation to their design and size, played an important role in influencing the emotional responses of a number of visitors, linked to their perceptions of the animals' wellbeing living in such spaces.

(i) Enclosure design

Animal enclosures at the zoo have undergone significant transformation over time, to provide animals with less oppressive and more enriching living conditions in ecologically authentic habitats (Davies, 2000). This type of natureculture also aims to provide a more immersive and engaging experience for zoo visitors (Coe, 1985; TIME, 2017). As befits a zoo which is also a botanical garden, the grounds at Paignton Zoo contain a wide variety of native and exotic vegetation, which is incorporated in varying degrees into the enclosures. Walking around the zoo, whilst I never felt immersed in exotic landscapes, there was always a sense of being in a large park/woodland.

Photograph 5.15: A typical view of the landscape of Paignton Zoo (author photograph).

The natural vegetation in the enclosures is supplemented by a range of infrastructure (both natural and synthetic), appropriate to the needs of particular animals. These can be fixed items, for example rope swings, or temporary items for animals to engage with, such as balls, scented material, and cardboard boxes. Within the zoo community, both these fixed and temporary items are collectively termed 'environmental enrichment'.

A number of participants identified the importance of seeing animals in what they described as 'natural' conditions. This added to their enjoyment of their encounters with a variety of animals, as they perceived that this type of setting was conducive to the wellbeing of its inhabitants. However, this sense of 'naturalness' was perceived differently by different visitor units, as highlighted by my visits to the Ape House with Karen (unit 4) and Steven (unit 1).

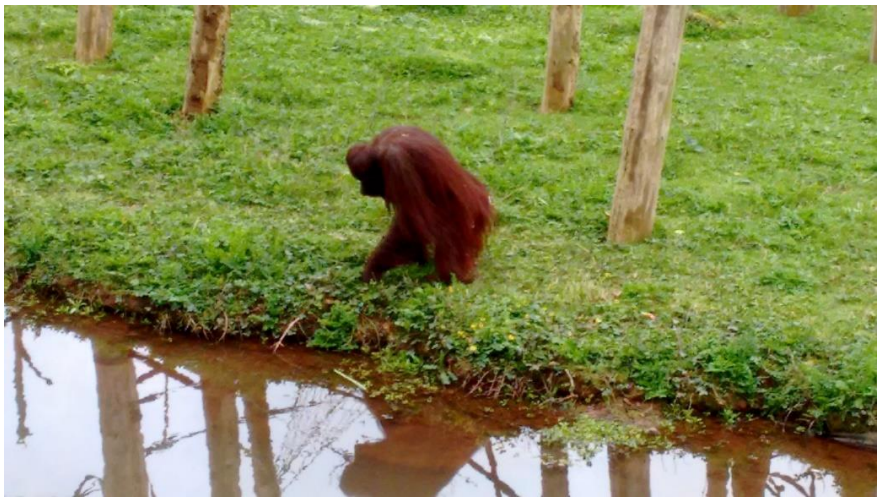
The Ape House is home to both gorilla and orang-utan and is comprised of indoor and outdoor areas. The indoor space is quite industrial in nature, comprising concrete floors and raised platforms, with a variety of wooden poles, ropes made from natural and synthetic fibres, rubber tyres, and hammocks. However, whilst it is an artificially constructed environment, Steven appreciated it as space providing functional similarity with their natural habitat:

> *"It's interesting how they're swinging along using the ropes and what they've put up for them because it's a natural environment even though they're inside, isn't it, its very much what they'd do if they were outside in the trees, so good, so so good." Steven, unit 1*

The outside space has an almost identical array of infrastructure, but it is set within a space which mainly consists of grass, bushes, trees and open water. Watching one of the adult female orang-utans down by the moat surrounding the outside area of their enclosure (Photograph 5.16), Karen reflected on how she preferred to see the orangs outside:

> *"I prefer seeing them out and about rather than inside. It feels more natural I think, um, yeah, just feels like it's more of their natural environment to see them out…if possible it [the*

enclosure] needs to be kept as natural as possible really. It's how it should be isn't it? It's how they were designed to be out and about…" Karen, unit 4



Photograph 5.16 One of the female orang-utans in the outside part of her enclosure (author photograph).

In contrast to Steven, Karen was more comfortable observing the orang-utans in the outside portion of their enclosure. She perceived this outside space to be more in keeping with the animals' natural habitat (despite the marked difference in vegetation present within the enclosure at the zoo compared with the rainforest habitat of wild orang-utans), and thus more appropriate in supporting her perception of the orang-utans' natural behaviours.

Such contrasting reflections serve to highlight the complexity in individuals' interpretations of appropriate living conditions for captive animals at the zoo, and how this can differentially influence their emotional responses during their encounters with particular animals.

(ii) Enclosure size

Despite the naturalistic look of the enclosures at the zoo, the size of some of the enclosures was a major source of concern and sadness amongst both members and non-members. As in the case of enclosure design, this was related to the perceived wellbeing of the animals housed within them. Whilst individual participants expressed these concerns in relation to the takin, cheetah

and anaconda, this perceived confinement was most commonly felt in relation to birds, which are predominantly housed in fenced and netted enclosures at the zoo. As I stood together with Julie and her family (unit 12) watching the great grey owls, they reflected on these feelings:

"I do sometimes feel sad for the owls though…" Julie

"Cos they can't really do a lot." Ellen

"No." Julie

"They don't have much fly space." Justin

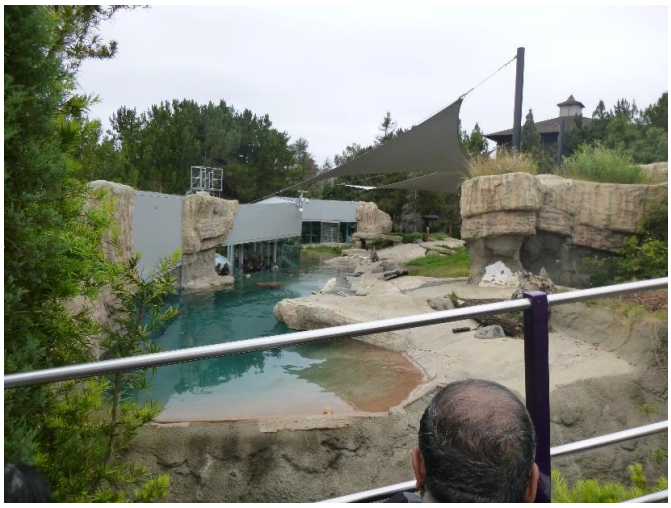
"No they don't have any flying room." Julie, unit 12

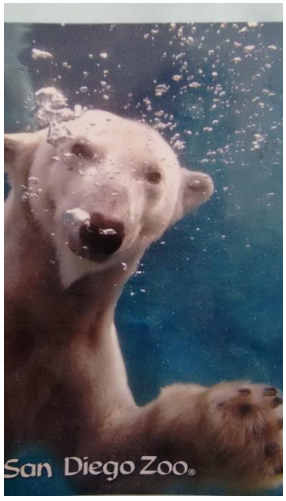
As can be seen from photograph 5.17, these fenced and netted enclosures exhibited strong elements of naturalness, with trees, shrubs and grass a common feature. However, these naturalistic features did not usually serve to assuage emotions of concern and sadness related to enclosure size.

Photograph 5.17 A typical enclosure for owl species at Paignton Zoo - about 10m long by 5m wide (author photograph).

Although not in relation to birds, this was something that I had also experienced during my research trip to San Diego Zoo in June 2017, and which I had reflected on in my research diary after spending my first day at the zoo.

I was excited about seeing the polar bears today. I was trying to remember as I walked through Bilbao Park to the Zoo when I'd last seen one – possibly in Edinburgh Zoo in the early/mid 1990s, and before that at London Zoo in the 1970s. I couldn't remember much about the enclosures where I'd seen them, but they were small, and a mixture of concrete, possibly some grass and a small pool. I'd read on the website about San Diego Zoo's commitment to providing appropriate conditions for these bears, in particular an arctic plunge pool and ice blocks in their enclosure. And I'd seen lots of marketing materials for the zoo, which have lots of images of the bears swimming in this plunge pool (and apparently waving whilst doing so!). I know these efforts to provide naturalistic conditions had made me feel better about the animals' wellbeing, especially as they are living in California – which seems a bit mad really. When I got to the zoo, I did the bus tour around first. I sat on the upper deck of the bus, as I figured I'd get a better view from there. As the bus went along, the driver stopped for a short while at each exhibit, and told us a little about each animal. It was quite hard to hear what he said above the excited chat of the other visitors. We finally got to the polar bears. They were amazing to see – so big, huge paws, thick white coats! And I looked at their pool. One bear was submerged within it, the other got out whilst we were there. There was also a large mound of crushed ice visible at the far end of the enclosure. And then I looked again – the enclosure was really small, and concrete……I was asking myself "Was it really that different from what I'd seen at London all those years ago?" And that was really depressing.

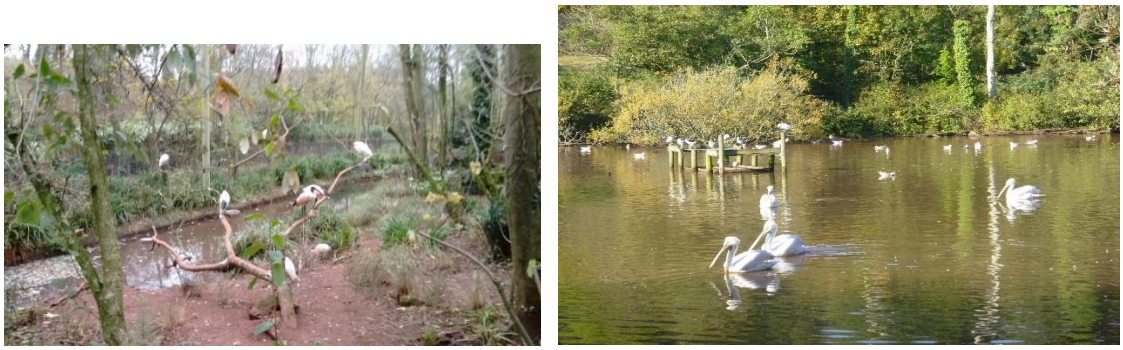




Left to right: View of polar bear enclosure from top of bus (author photograph). Polar bear postcard (author photograph)

Excerpt 5.2 My first encounter with the polar bears at San Diego Zoo.

In contrast to the concerns expressed for the owls, exhibits where participants encountered birds which were less obviously confined, such as the walk-through aviary, or living outside of an enclosure, such as the pelicans, did not serve to trouble participants' emotions. In these encounters, participants expressed pleasure at the perceived freedom of the birds in these situations.



Photograph collection 5.18 From left to right: walk-through aviary; and pelicans on lake around Gibbon Island (author photographs).

However, as I described in my fieldwork diary a few days after the go-along with Julie and her family, this perception of freedom is, in the case of birds like the pelican, a more complex issue.

> I'd been thinking about the concerns about the owls in the fenced and netted enclosures. I feel pretty much the same – they just don't have the space to fly, yet the zoo has large grounds, so why can't they construct a bigger enclosure which would enable flight? I had wondered if the owls' wings were clipped or something, so that they couldn't fly anyway. I went and asked the bird keepers about it. Turns out that the owls' wings are fine, so they could potentially fly. But the pelicans' wings are pinioned, so that they can't fly. I went and looked up what pinioning involved. I found a detailed description on this website:
>
> http://wildpro.twycrosszoo.org/S/00Man/VeterinaryTechniques/WfowlIndTech/W_Pinioning_Downy.htm
>
> It's a surgical procedure, which removes one pinion joint, the joint of a bird's wing farthest from the body, to prevent flight. It's common practice in waterfowl and poultry, only done to one wing, and done in very young birds, just a few days old. Crucially for me, the procedure is permanent and irreversible. So, the pelicans visitors encounter at the zoo are perceived positively, as they aren't in an enclosure. What they don't recognise is that these birds have been irreversibly confined to land and water through a human surgical intervention.

Excerpt 5.3 Exploring the flight capabilities of birds at Paignton Zoo.

As became apparent in section 5.3.2.3, perceptions of animal encounters and associated emotional responses can vary considerably between individual visitors. For Sara, in the case of the great grey owl, the perceived naturalness of the enclosure was seen to predominate in relation to her emotional responses, rather than any issues regarding size. The wooded nature of the enclosure was a source of pleasure, in terms of having to look out for the owls, and in relation to a sense of the owls' wellbeing.

> *"…the other thing I like about this is they've done the cages for me in such away with the amount they've got here, you've actually got to concentrate and look for them, d'you know what I mean? They're not just like totally on show, so for them it's almost like they've got their own privacy, because if you're not looking you wouldn't see them." Sara, unit 1*

As highlighted at the start of this section, zoos seek to design exhibits to meet the needs of their non-human residents and human visitors. Through the go-alongs, the contrasting and complex ways in which the exhibit infrastructure can serve to trouble or enhance the embodied experience at the zoo became apparent. In investigating the issue of confinement of birds at Paignton, I also learned more about how the perceived freedom of some birds may be misplaced in the hearts and minds of the visitors.

5.4 Concluding summary

This chapter has provided a detailed account of the emotions expressed by participants during their encounters with animals at the zoo, revealing the rich and varied nature of each individual's lived experience at the zoo. In so doing it has addressed the first empirical objective of this research study.

Through providing an account of participants' encounters with animals at the zoo, it has become clear that these experiences serve to elicit a wide range of emotions. The thematic analysis of original empirical data has revealed ten different categories of emotional response, and seven different factors which can be understood to underpin these responses. These factors are not

necessarily limited to aspects present at the moment of encounter, but may also include previous encounters with animals in a range of settings, and also be influenced by participants' understanding of the role of the modern zoo. This has therefore highlighted the importance of attending to participants' previous encounters and interactions with animals in developing an understanding of their emotional responses during the time of the zoo visit. Whilst these seven individual factors are varied in nature, this chapter has highlighted that the embodied nature of experiences with animals, both within and beyond the boundary of the zoo, is the recurring theme which serves to draw these individual factors together.

Considering firstly participants' past experiences of animals, their recall of previous encounters with animals at zoos or other wildlife attractions conveyed a sense of immediacy even after the passing of many years. Sensorial and emotional memories of embodied encounters in these settings remained strong and clear, and served to inform or even dominate participants' emotional responses to animals during the go-alongs at the zoo. This was identified primarily in relation to emotions in the categories of 'enjoyment' and 'love, empathy and connection', but was also witnessed in relation to emotions in the category of 'dislike and disgust'. These findings resonate with scholarship within the field of memories within human geography (see for example, Jones et al., 2012). Within the specific context of human-animal encounters at wildlife attractions, a small body of work from tourism studies has also identified the strength of the emotional aspect of memory (Ballantyne et al., 2011). However, the findings in this research study extend this understanding within the context of the zoo, through identifying how such memories can act as a major influence on emotional responses in futures encounter with particular animals.

Whilst encounters with animals at the zoo were not an everyday occurrence for participants, many had had experiences with domestic pets on a more regular basis. These more frequent and generally more intimate embodied experiences were seen to inform participants' emotional responses to species of animal from within the same phylogenetic family. These responses were predominantly ones in the category of 'love, empathy and connection' emanating from their positive

relationships with their pets. However as in the case of memories from encounters with animals at wildlife attractions, adverse experiences with family pets were also seen to influence emotional responses in the category of 'dislike and disgust' to similar animals at the zoo.

The findings presented in this chapter also identify the importance of participants' encounters with animals through other media, notably television, books and films in mediating the nature of their emotions during embodied encounters with animals at the zoo. Again, the longevity of particular encounters was in evidence, with adult participants' cognitive memories recalling particular books or films watched in their childhood when encountering particular animals at the zoo. Whilst less common, knowledge gained through television and social media regarding threats to endangered wildlife also served to influence emotional responses at the zoo, where encounters with particular animals triggered cognitive memories of their anger and disgust towards the impact of human activities on animals in the wild. In these cases, whilst the embodied encounter with the animal at the zoo acted as the prompt or trigger, the emotions expressed related to cognitive memories and cultural referencing of animals.

Finally, in considering how participants' previous experiences influenced their emotional responses during the go-alongs, participants' pre-conceptions of the role of the zoo were identified as another important factor. As discussed in Chapter 3, zoos have multiple aims, relating to entertainment, education, conservation and research. The extent of participants' understanding and appreciation of these multiple aims was very varied, and served to influence their emotional responses during the zoo visit.

Within existing, primarily psychologically-based studies of zoo visitors, exploration of aspects which visitors 'bring to the zoo', which may serve to influence their experiences during the zoo visit, has been centred on: (i) explorations of visitor motivations (Fraser and Sickler 2008; Clayton et al., 2009; Fraser, 2009); and (ii) visitors' previous or existing relationships with animals, explored through scale-based measurement of prior levels of interest, feelings

and behaviours with regard to animals and the environment (Luebke et al., 2016). The empirical evidence presented in this chapter extends and develops this work through providing a richer and broader exploration of the numerous ways in which previous embodied (and also virtual) encounters with animal can serve to shape emotional responses to animals encountered at the zoo.

Once at the zoo, participants expressed a range of emotions during their encounters with the animals, which could be attributed to four factors: (i) the type and frequency of the encounter; (ii) nonhuman charisma; (iii) anthropomorphism; and (iv) animal enclosures. These factors concur broadly with those found in the predominantly psychologically-based visitor studies of human-animal encounters at the zoo described in Chapter 3, and in relation to Lorimer's account of nonhuman charisma (and specifically aesthetic charisma) (2007). However, as described below, the importance of embodied encounters and the frequency of such encounters has been more fully revealed and explored in this research study.

The encounters with animals at the zoo served to highlight the value and importance which participants attributed to their firsthand, embodied experiences, particularly in comparison with virtual encounters via wildlife television programmes and books. Being in the presence of, and often in close proximity to these animals facilitated an engagement beyond the visual, providing a more sensorial experience of the animal. All participants expressed enjoyment in such encounters. In addition, all units also expressed emotions categorised as 'awe and wonder', which were related to the participants' appreciation of the physical and/or behavioural characteristics of the animals. The significance of emotions of 'awe and wonder' can be understood in relation to work in psychology by the Nature Connectedness Research Group at Derby University, which has explored the importance of such emotions in developing a positive emotional connection with the natural world (Richardson et al., 2015a; Richardson et al., 2015b).

For many participants their emotions also extended to 'love, empathy and connection' for the animals at the zoo. These types of emotional expression are indicative of how human-animal encounters at the zoo can move beyond the

realm of the spectacle, where the animal on display is simply an ‘object’ to be viewed. For these participants these encounters provide an opportunity to develop what can be understood as a more relational engagement with the animals at the zoo, thus providing a challenge to some of the criticism of the zoo as spectacle (Berger, 1980; Acampora, 1998), and as a place which reinforces human domination over nature (Anderson, 1995).

As discussed in Chapter 3, a key role of the animals at the zoo is to act as ambassadors for their conspecifics in the wild, and to secure care and concern from visitors for these geographically remote animals (Rabb and Saunders, 2005; Braverman, 2013). In discussing their emotional responses during moments of encounter at the zoo, it was clear that for some participants, this goal was being achieved. This finding therefore extends knowledge of visitor-animal encounters at the zoo, by revealing the capacity of encounters at the zoo to elicit expressions of care and empathy for the conspecifics of the zoo animal in the wild. In exploring these emotional responses, this research has also revealed the importance of frequent (at least monthly) encounters with animals at the zoo in terms of developing this relational engagement. Whilst the frequency of encounter has previously been identified as important in relation to securing positive emotional connections with animals at the zoo (Clayton et al., 2014), it has not previously been revealed in relation to geographically remote conspecifics of the animals at the zoo. However, the frequency of encounter did not always result in the same outcome across participants. In some cases, whilst unusual, the result of repeated encounters resulted in a very different response of ‘boredom and indifference’ towards animals at the zoo. In relation to geographical scholarship, these findings in relation to frequency also support the importance of the temporality of the encounter (Wilson, 2017), in particular the significance of the ‘sustained’ (i.e. multiple or regular encounters), which has received far less examination within geographical study than the ‘fleeting’ (ibid), momentary encounter.

This chapter has also revealed a tension between the capacity of the embodied zoo encounter to facilitate affectionate, caring relationships between visitors and zoo animals, and its counter-capacity to elicit emotions in the category of

‘concern, worry and upset’. Animals encountered at the zoo are inevitably captive, and in some way confined. Anthropomorphism in relation to the perceived emotional disposition of animals encountered and/or perceptions of the design and/or size of animal enclosures was the most common cause of emotions of concern and sadness. In such encounters, the focus of concern was fully centred on the wellbeing of the animal in close proximity to the participants. As described above, this is counter to what the zoo is aiming to achieve in terms of engaging visitors in the plight and wellbeing of animals in the wild, where their lives may be under threat through activities such as hunting, poaching, habitat destruction and degradation. The engagement with the ambassador animal remains spatially limited to that individual animal in close proximity. This is perhaps an inevitable aspect of human-animal encounters at the zoo. As Jon Coe, a leading figure in zoo exhibit design has identified: “Even the best zoos today are based on captivity and coercion. To me, that’s the fundamental flaw.” (TIME, 2017).

The zoo visit involves up to a day spent in the company of animals. There is little time for reflection during the visit, as visitors are constantly walking from one exhibit to the next, seeking out the next encounter and absorbing themselves within it. As already highlighted, the majority of research exploring visitors’ emotional responses to encounters with animals at the zoo has been concentrated during the time of this visit. However, there is a lack of exploration of how visitors’ emotional responses, elicited from their multiple embodied encounters with animals, travel over time and space beyond the boundary of the zoo and zoo visit. Whilst this chapter has also centred on emotional responses during the time of the zoo visit, the following chapter, Chapter 6, moves beyond boundary of the zoo visit to identify and explore how participants’ experiences at the zoo may influence their expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and wider nature.

Section 5.3.1.1 of this chapter has provided some indications of how emotions experienced on previous zoo visits can travel through these dimensions to influence future human-animal encounters at the zoo. Allied to this, section 5.3.2.1 has described how for some emotions at zoo can transfer to

geographically remote conspecifics in wild. Chapter 6 will now consider this in detail, to enable the agency of the zoo animal beyond the confines of the enclosure and the captivity of the zoo setting to be more fully explored.

Chapter 6: Persistence: the influence of the zoo visit over time and space

6.1 Introduction

This chapter aims primarily to address the second objective of this research project. It explores how participants' encounters with animals at the zoo may travel over space and time, beyond the boundary of the zoo, to influence participants' expressed feelings towards, and pro-environmental behaviours in support of, endangered wildlife and the wider natural world. It also informs consideration of the third research objective, which draws on the empirical data to explore the ways in which the zoo could enhance visitor engagement in pro-environmental behaviours.

The material presented in this chapter is mainly derived from the thematic analysis (described in Chapter 4) of the semi-structured interviews with participants that were conducted up to three weeks after the go-along interviews at the zoo. It also draws on the analysis presented in Chapter 5 (Section 5.2) to aid reflection of how participants' experiences travelled over time and space beyond the boundary of the zoo. This material is also complemented with material from my fieldwork diary and other observations made from my time at the zoo, to aid further reflection on the empirical data.

Chapter 3 identified that, from the zoo's perspective, a key outcome of the zoo visit is that visitors care about, and want to act in support of wildlife conservation (Braverman, 2013; Rabb and Saunders, 2005). Chapter 3 also highlighted that, in their efforts to evaluate the efficacy of the visit in relation to this outcome, zoo-based visitor studies are predominantly contained within the boundary of the zoo, and focus on visitors' emotional responses, pro-environmental behaviours or intentions either at some point during or at the end of the zoo visit. Chapter 5 has considered participants' emotional responses during their moments of encounter with animals at the zoo. However, it is also important to understand how these experiences may travel beyond the zoo boundary, as visitors return to their daily lives, and the sites of practice (Barr et al., 2011)

where the zoo hopes that visitors will enact pro-environmental behaviours in support of endangered species conservation.

Using the empirical data, this chapter will argue that the theme of *persistence* is central to understanding the second research objective. Persistence is used to describe how, and to what extent, participants' encounters with animals at the zoo remained with them over time and space beyond the boundary of the zoo and the zoo visit. This persistence is explored firstly in relation to participants' expressed feelings in relation to endangered wildlife and then in relation to the wider natural world. This reveals the extent to which encounters with animals at the zoo remained with participants beyond the zoo visit, and the ways in which reflection beyond the zoo boundary served to influence the nature of these expressed feelings.

The chapter then moves from the emotional dimension to consider behaviours, exploring how and to what extent these expressed feelings were manifest in terms of actions in support of wildlife conservation, captured under the banner of 'pro-environmental behaviours'. Such behaviours are explored within a broad frame to encompass a wide range of activities related in some way to the conservation of endangered wildlife and the wider natural world, undertaken by participants in response to their encounters with animals at the zoo. In this way participants' responses were not limited to a consideration of the prescriptive, pre-determined behavioural outcomes within the zoo's current conservation advocacy objectives which, as discussed in Chapter 2, are reflective of a psychologically-based framework for behaviour change. This exploration reveals how experiences at the zoo can persist, influencing participants to undertake a range of pro-environmental behaviours. It also identifies a number of limiting factors, both at the individual and wider scale, which can limit the persistence of the zoo experience in relation to these behaviours.

Overall this chapter illuminates the value of engaging with visitors beyond the boundary of the zoo visit, providing them with the opportunity for reflection on their zoo visit, as a means to develop a more informed understaning of the influence of their experiences at the zoo.

6.2 Persistence of the zoo experience: expressed feelings towards endangered wildlife and the wider natural world

As described in Chapter 4, the post-visit interview, held up to three weeks after the go-along interview, provided participants with the opportunity to reflect on their recent visit to the zoo. It is acknowledged that, particularly for those participants who were zoo members (either of Paignton Zoo or other UK zoos) and visited frequently, these reflections were not based solely on their recent go-along visit. In this reflective space participants described the influence of their encounters with animals at the zoo on their expressed feelings in relation to (i) endangered wildlife and (ii) the wider natural world. The responses of these participants to these two elements are considered in turn in Sections 6.2.1 and 6.2.2

6.2.1 Expressed feelings towards endangered wildlife

As described in Chapter 3, and also applied in Chapter 5, expressed feelings are understood to be emotions, which are socially constructed through language and other representational practices (Anderson, 2006). Thus, the terms “expressed feelings” and “emotions” will be used synonymously throughout this chapter. Through the thematic analysis described in Chapter 4, four categories of emotional responses were identified (Table 6.1) to capture participants’ expressed feelings towards endangered wildlife. Emotions in the category of ‘concern, worry and sadness’ were expressed by the majority of units. Slightly less prevalent, but also common were feelings of ‘empathy’. Whilst less common, emotions in the categories of ‘anger and upset’ were expressed by a number of participants in a smaller number of units. In contrast, emotions in the category of ‘unconcerned’ were very unusual.

Category of emotional response
Anger and upset
Concern, worry and sadness
Empathy
Unconcerned

Table 6.1 Categories of emotional response in relation to endangered wildlife as a result of the zoo visit.

The categories of ‘anger and upset’, ‘concern, worry and sadness’, and ‘empathy’ illustrate the persistence of the zoo experience on participants’ expressed feelings toward endangered wildlife. It is important to note that more than one of these feelings could be expressed by participants in relation to their zoo visit. Conversely the category of ‘unconcerned’, which illustrates a lack of persistence of the zoo experience, was not expressed in combination with any of the other three categories. In addition to describing what they were feeling, participants also discussed the reasons for their expressed feelings. The thematic analysis described in Chapter 4 identified three aspects which informed their reasons: (i) the plight of endangered wildlife; (ii) human impacts on wildlife; and (iii) perspectives of human-animal relationships.

The following sub-sections provide a description and analysis of these four different categories of emotional response through a consideration of the three aspects which participants used to explain the reasons for their responses. This serves to illustrate the nature of these different emotional categories, and thus the ways and extent to which encounters with animals at the zoo persist beyond the zoo boundary to influence participants’ expressed feelings towards endangered wildlife.

(i) Plight of endangered wildlife

The majority of participants expressed feelings in relation to the plight of endangered wildlife. Emotions in the category of ‘concern, worry and sadness’ were most commonly expressed. Of these participants, those who were zoo members also expressed these feelings of concern in empathetic terms. Whilst unusual, a small number of participants described feeling unconcerned beyond the boundary of the zoo. For one participant their concern remained with the wellbeing of the animal at the zoo, rather than its conspecifics in the wild. These responses are explored in detail below.

A number of participants, both members and non-members, expressed emotions in the category of 'concern, worry and sadness' in recognition of the possibility that many of the animals they encountered at the zoo could become extinct in the wild:

> *"…that concern there for the fact that you know that in some point in time the only place we might see these animals is actually in a zoo or a sanctuary, you know that's so wrong to think that you know perhaps in my lifetime that might happen." Deborah, unit 15*

Set within concerns about potential extinction, some participants also expressed concern and sadness regarding the wellbeing of animals in the wild. Jennifer described how she felt about seeing animals at the zoo and then hearing stories about their death in the wild:

> *"I think it does make you feel differently about them, and then when you hear a story you think 'Oh my god, those, all those animals'." Jennifer, unit 8*

From the material presented in Chapter 5, it was clear that participants expressed different emotions in response to encounters with different species. The post-visit interview enabled exploration as to whether emotions tied to specific animals at the zoo might influence concerns regarding the potential extinction of geographically remote conspecifics. A number of participants identified that, whilst they had particularly enjoyed their encounters with particular species at the zoo, this did not translate into heightened levels of concern for that species over and above others, when considering their plight in the wild. Patrick, unit 14, was quick to assert and explain how his concerns travelled across all species:

> *"…they've [all wildlife] been here millions of years, d'you know what I mean, and evolved on this planet… they've all got a really important niche from insects to the birds…" Patrick, unit 14*

Christina also explained how her specific encounters at the zoo had enabled her to make the link to a broad spectrum of animals across a wide range of geographical regions:

> *"…just seeing all the animals there and the environments they were in just made me think more in general about all those animals, and the wild and different countries and where they're endangered." Christina, unit 2*

However, whilst less common, some participants did identify that their level of concern for the conspecifics of the animals at the zoo was related to particular species. In identifying the more boundaried nature of his emotions towards endangered species, Christopher also revealed how his attribution of nonhuman charisma to certain species served to focus his concern in relation to those animals:

> *"Gotta be honest if someone sort of said this type of frog is endangered, I may just think 'Oh well it's just a little frog!' [laughs] if I'm being brutally honest…but I suppose it's cos some things don't look as cute or like you know they're not you know roaring or prancing around, you know you look at a little frog in a cage and it just sits there for a bit and hops off." Christopher, unit 8*

The participants in unit 12 also identified that their expression of concern for animals in the wild was specifically tied to the animals they encountered at the zoo. However, unlike Christopher, this was not linked to a particular liking or fondness of certain species. For this family, their capacity for concern was very strongly linked to having had a specific embodied experience with that particular animal at the zoo:

> *"… like Ellen was saying though, because we've been to the zoo and we've seen the tigers and the lions and the cheetah and you know all the animals, they appreciate them because they see them…so I do think that places do need all the different animals, I know you can't have every single animal in one zoo…" Julie, unit 12*

"Yeah then you can actually know what it's like [the species of animal]…because then you actually realise what it's like in the wild and maybe it could have an impact on how you think about zoos and what you've seen." Ellen, unit 12

"You can relate to it." Julie, unit 12

Units 1 to 3, who took part in the pilot phase of this research, had not been to a zoo for two years or more. They identified that they had not been actively planning a visit to the zoo until the opportunity arose to participate in the pilot. Therefore, they were unlike the other participants who visited Paignton Zoo and/or other zoos and wildlife attractions on at least an annual basis. In describing their emotions of concern for endangered wildlife, several participants in the pilot phase highlighted how the zoo visit had served to rekindle their concerns:

"…it reignites my concern and kind of my background thoughts of well how can I pass on to Thomas [their son] so he can be concerned and thoughtful of this issue, and teach him more like you know, take him down more…" Sara, unit 1

In Sara's case above, her concerns also extended to engaging her young son in issues of endangered wildlife and conservation.

As described above, both members and non-members expressed emotions in the category of 'concern, worry and sadness' in relation to the plight of endangered species in the wild. This can be understood as a form of relational engagement with geographically remote species. However, as was the case at the zoo, during the post-visit interview, these emotions were only expressed in more empathetic terms by zoo members. These empathetic responses to conspecifics in the wild were revisited by these members during the post visit interview, where they reflected further on how frequent visits served to strengthen their feelings of empathy:

"…you become more empathetic towards what's going on from where they come from, because you have some sort of emotional attachment." Alice, unit 10

A comparison can be made between how the emotion of 'concern' was expressed at the post-visit interview in relation to how it was expressed during the zoo visit. Chapter 5 identified how participants' expressions of concern during the go-alongs were primarily in response to the animals they encountered at the zoo, and were linked to negative perceptions of the animals' wellbeing. From the analysis presented in this chapter it is evident that, for the majority of participants, in a reflective space, away from the immediate stimulus of the zoo animal, emotions of concern were focused on the conspecifics of the zoo animals in the wild. Thus, whilst superficially the emotional category of concern might appear very similar to that of the zoo visit, the direct comparison of the data shows that, for the majority, beyond the boundary of the zoo, the focus of this concern shifted from the animals in the zoo to their conspecifics in the wild. However, whilst it was unusual, concern for the animal at the zoo at the post-visit interview was also seen to persist. Laura's concerns regarding Duchess, the Paignton Zoo African elephant (explored in Chapter 5) remained with her beyond the zoo visit, to the extent that these concerns continued to take precedence over concerns about the endangered status of this species in the wild:

> *"I think in a way it doesn't make you more concerned for the ones in the wild because you're thinking they're the ones who are having a better time of it, you know, that one on her own, and then you think in the wild she would have company, um, so it's probably a bit misplaced, but you sort of think oh you know you feel sorry for the one, but maybe they are having an easier life, in fact undoubtedly they are having an easier life, but whether it's the right life…" Laura, unit 2*

In contrast to the emotions of concern regarding the plight of endangered wildlife which were commonly expressed during the post-visit interview, participants from one visitor unit identified that beyond the zoo visit, they were unconcerned about this issue. Heather described how their experiences at the zoo failed to remain with them beyond the boundary of the visit:

"…I mean walking around the zoo looking, particularly at ones that you know are endangered, um, you do feel sad for them and you do feel you know we as humans have obviously gone wrong somewhere, but then you come away from the zoo and it does sort of leave your mind, it sort of stays in the zoo…"
Heather, unit 13

Heather's concerns about endangered species appeared short-lived, and reliant on the physical proximity of exotic wildlife during the zoo visit to elicit emotions of concern. Beyond the zoo, and without such a stimulus, these emotions failed to persist, remaining confined to the time and place of the zoo visit. This is clearly of concern to the zoo, which hopes to encourage and secure active engagement in wildlife conservation from its visitors. It is suggestive of the need for the zoo to actively retain an engagement with visitors beyond its physical boundaries, an issue which will be explored in detail in Chapter 7.

(ii) Human impacts on wildlife

In reflecting further on their feelings about species in the wild, both members and non-members expressed emotions in the categories of 'anger and upset', and 'concern, worry and sadness' in relation to how human activities were causing and/or exacerbating the threats to these species:

"I feel sad you know because at the end of the day we're a lot of the cause. It's because of things that we as humans do…you know we've caused these problems for these animals…"
Deborah, unit 15

"…I think sometimes I feel a bit angry about the fact that people are 'Oh well it's only palm oil', well it's not actually, it's the consequences you know, clearing the land for the palm oil have on the animals." Janice, unit 15

Whilst anger had been expressed by a small number of participants during the zoo visit, more participants expressed this emotion beyond the boundary of the zoo.

(iii) Perspectives of human-animal relationships

For a small number of members, their encounters with animals at the zoo elicited concerns in relation to broader human-animal relationships, and human perspectives of the natural world. These participants were also individuals who expressed empathetic connections with zoo animals and their conspecifics in the wild during the zoo visit. For Amy, an important aspect of the zoo visit was its capacity to give an insight into the tremendous variety of species on the planet, of which humans are just one:

> *"I think we are very arrogant as a species. Sometimes its better to look at things bigger than yourself, to see all these different species, all independent species and they can go and do their own things regardless of us." Amy, unit 9*

Angela expressed concerns regarding human-animal relationships in relation to motivations for species conservation, where she perceived there was a lack of empathy with, and respect for, the intrinsic value of endangered species:

> *"…but you save them [endangered species] for themselves don't you? They are worthy of being saved. It's not that your grandchild won't be able to see a giraffe in the wild, it's that giraffes need to be living in the wild, and that's just a reflection of the human-centric view of the natural world." Angela, unit 15*

In these cases, participants were able to move beyond a consideration of their particular concerns or worries about the plight of endangered wildlife, and to reflect on the broader, systemic issue of the culturally embedded paradigm of human domination over nature.

6.2.2 Expressed feelings towards the wider natural world

Participants were also asked about the influence of the zoo visit on their expressed feelings in relation to the wider natural world as a result of their zoo visit. Chapter 4 explained in detail the rationale for asking both of these questions. As zoos tend to use ambassador species as proxies for wider

biodiversity and ecosystems, this analysis enabled an exploration of the extent to which participants' expressed feelings extended beyond individual animal species, to encompass the wider ecosystems they inhabit and depend upon.

In comparison with their expressed feelings towards endangered species, only a small number of participants explicitly expressed feelings in relation to the wider natural world as a result of the zoo visit. Through the thematic analysis described in Chapter 4, one category of emotional response, 'concern' was identified to capture participants' expressed feelings towards the wider natural world. Participants' expressed feelings of concern centred on the impacts of human activities on the wider natural world:

> *"…I think it makes you concerned about the waste and pollution, plastics that are ruining our seas and everything really. It makes you aware of what we're doing to the planet."*
> *Jane, unit 11*

As identified in section 6.2.1 a number of participants did identify the need for the conservation of all species, which could be seen to be indicative of a wider sense of the need to conserve the natural world. However, from participants' responses in section 6.2.1, it is clear that encounters with animals at the zoo serve primarily to influence their emotions towards endangered wildlife. This may be a reflection of the extent to which participants understand or are able to make links between how threats to individual species may be bound up in wider issues of ecosystem health. This issue of knowledge and awareness will be returned to in section 6.3.2.2 and in Chapter 7.

Having considered the persistence of the zoo experience in relation to the emotional dimension, the next section goes on to explore how this experience may persist in relation to undertaking pro-environmental behaviours in support of endangered wildlife and the wider natural world.

6.3 Persistence of the zoo experience: pro-environmental behaviours

This section firstly (Section 6.3.1) considers the variety of ways in which the participants' experiences at the zoo served to influence a range of actions that they considered as contributing in some way to the conservation of endangered wildlife and the wider natural world, captured under the banner of 'pro-environmental behaviours'. Secondly (Section 6.3.2), it explores a number of 'limiting factors', expressed by participants, both in relation to themselves, and in relation to wider systems and structures, which they felt in some way hindered their ability to act in support of wildlife.

As highlighted in the introduction to this chapter, within this aspect of the post visit interview, participants were encouraged to talk widely about the types of activities that they undertook as a result of their encounters with animals at the zoo. They were also asked specifically about actions in relation to the WWCT's conservation advocacy goals (described in Chapter 3). This broader framing of pro-environmental behaviours facilitated a full and wide-ranging exploration of the influence of the zoo experience on activities connected to wildlife and the wider natural world. Whilst participants were asked about behaviours in relation to both endangered wildlife and the wider natural world, they did not make clear distinctions between the types of actions in relation to these two different aspects. Although in relation to palm oil, it was clear that the primary motivation for some was to aid great ape conservation, participants responded by describing a range of actions that they undertook as a result of visiting the zoo, which can be considered under the banner of pro-environmental behaviours.

6.3.1 Pro-environmental actions attributable to the zoo visit

The majority of participants described the persistence of the zoo visit in relation to its influence on a range of actions which can be understood as some form of pro-environmental behaviour. Through the thematic analysis described in Chapter 4, six different categories of pro-environmental behaviour were developed: (i) resources to support the work of the zoo; (ii) resource consumption; (iii) palm oil choices; (iv) advocacy in the local community; (v)

pursuing an interest in wildlife; and (vi) family visits. These are discussed in turn in the following sub-sections, and reveal a broad spectrum of behavioural responses from participants. For some the zoo has had a significant influence on their behaviours, manifest in complete rethink of their shopping practices and a willingness to engage others in issues of wildlife conservation, both at work and out in their local communities. For some it rekindled an interest in wildlife, and for others, it appeared to drive and/or reinforce their everyday practices related to resource consumption, centred on the household.

6.3.1.1 Resources to support the work of the zoo

Providing financial contributions to the zoo was the most common behaviour described by visitor units as a way to help support endangered wildlife. Whilst this is not an explicit objective within the WWCT's advocacy programme, in common with other wildlife attractions, financial contributions from its visitors and members are crucial in enabling the delivery of their conservation work. Through supporting the zoo in this way, both members and non-members felt that they were helping the zoo in its efforts to address the threats posed to endangered wildlife. All visitor units that were zoo members felt that their zoo membership helped in this regard, along with making other purchases on site from the retail and catering outlets, and making the occasional donation to an appeal focused on a particular animal.

In the case of non-members, a number identified that, by paying their entry fees to the zoo, they were supporting the conservation work of the zoo. For some of these visitor units, they felt it was important that their money was being used in this way, rather than just in providing a spectacle for entertainment:

> *"I suppose we go and visit lots of different zoos and whatever to pay the money to go in that they then spend on the conservation, so we would be choosy about where we went, rather than just wanting to go and see an animal for the sake of seeing an animal…" Naresh, unit 5*

In addition to the importance of the conservation focus of a wildlife attraction, some participants, both members and non-members, also identified that they

would welcome more detailed information about endangered species conservation, so that they could gain a better understanding of how their financial contributions were being spent. In Rebecca's case, this was particularly relevant in relation to spending money, over and above the entry fees, during the zoo visit:

> *"I'd rather give £4.50 for that animal that's endangered and then tell me what they've done with it. I haven't got a problem with that, it's why we do gift aid. I have a problem paying £4.50 for face painting!" Rebecca, unit 5*

For Rebecca and other participants, a clearer understanding of the conservation work would be helpful and potentially facilitate further financial contributions, either through repeat visits or additional spending on site. Rebecca's comment is also reflective of the zoo's challenge of being a place of entertainment, alongside having conservation and educational aims. This issue of information in relation to financial support will be considered further in section 6.3.2.

For Deborah and Janice (unit 15) who were members of another UK zoo, in addition to the financial support of their membership, they also enjoyed providing non-financial resources to support their local zoo. This involved collecting cardboard and other suitable materials that could be used as enrichment for animals at that zoo. Enabling members and other visitors to provide non-financial resources in such a way is not currently an option at Paignton Zoo.

6.3.1.2 Resource consumption

In discussing their actions in support of endangered wildlife, there was a recurring narrative across many participants, both members and non-members, of behaviours in relation to resource consumption in everyday household practices. These actions are commonly referred to in the context of pro-environmental behaviours as the '3Rs' of reduce, reuse, recycle. In identifying these kinds of activities, some of the participants expressed their perception

that, by undertaking the activities, they were achieving what was required of them in relation to the conservation of wildlife and the wider natural world:

> *"…so we do as much as we can [to help support the natural world], we don't waste very much, I'm quite sure we don't waste things, and we recycle". Kenneth, unit 11*

Some of these participants did not feel that the zoo had influenced these behaviours, as they asserted that this was the type of thing that they did anyway. However, some other members and non-members highlighted how their trips to the zoo had increased their awareness of how important such actions were, and how it helped to motivate them to act in particular ways in their everyday lives:

> *"I think the other thing for us is it also makes us aware of things like recycling, how important that is…" Rebecca, unit 5*

However, as Karen highlighted, whilst acknowledging that their zoo visits had had an impact on their behaviours, it was not always straightforward for participants to tease out the extent to which these zoo visits had made a difference to their actions:

> *"…you know you kind of knew it can affect the animals and stuff, but actually coming in and seeing all the animals and yeah, I just think, I definitely started recycling more in the last sort of few years when I've been coming to the zoo, I dunno if it's directly connected…but there's probably a little that has come from that." Karen, unit 4*

In considering their actions, there was a recognition from some participants that their focus on the '3Rs' was insufficient as a behavioural response to their concerns about endangered wildlife, but this was also bound up with a sense of helplessness regarding how else it was possible or desirable for them to act beyond the framework of resource consumption:

> *"I don't think we do enough, but I really don't know what else we can do, other than trying to conserve energy which is stopping pollution…" Julie, unit 12*

In reflecting on what else she could do to support endangered species conservation beyond her everyday practices related to resource consumption, Amy also expressed a sense of helplessness, linked to the geographical remoteness of the animal encountered at the zoo from her everyday life in the south west of England:

> *"What can we do all the way from here?" Amy, unit 9*

In considering the WWCT's conservation advocacy objectives in relation to marine conservation and environmental management, many of the above responses would undoubtedly be viewed in a positive light. Through an alternative lens, the participants' focus on everyday resource consumption practices can be viewed as a reflection of the dominance of the psychologically-based approach to behaviour change discussed in Chapter 2, where the individual is required to act in particular, prescribed ways. Despite the concerns expressed by participants in relation to the plight of endangered wildlife, their response was often cast within everyday activities focused around the household, which they understood to be the 'appropriate' response to engaging in environmental issues. Whilst for some such a response was felt to be insufficient, they had little sense of what else they could do to respond to their concerns in relation to wildlife conservation. However, their responses suggest that they would welcome further support from the zoo to facilitate additional action, which will be explored in detail in Chapter 7.

6.3.1.3 Palm oil choices

A small number of participants, both members and non-members, identified that they had made significant changes to their shopping behaviour as a direct consequence of their zoo visits. This behaviour centred on avoiding products containing palm oil, due to participants' concerns about the impact of the palm oil industry on the rainforest habitat of the orang-utan. As Deborah explained, her motivation was very much linked to her emotional engagement with the orang-utans she has encountered at various zoos:

> *"…I think when you see the animal there and you have this intimacy with it then you do want to protect its*

environment…and if there is anything I can do to help them, I will." Deborah, unit 15

She then went on to explain how she had made changes in her behaviour to try and provide support for these animals in the wild:

"I've changed the way I do my shopping now you know, whereas before I would just go and grab things off the shelf and put them in the trolley and go to the desk and pay for them, I now stop and I take time to read the back of the packet to see whether it contains palm oil or not and if it does, the majority of the time I put it back on the shelf and I go to the next item and I check that. The first time I really did it intensely it took me about two hours to do my shopping, and it normally would have taken say three quarters of an hour, so you know that's had an effect on my life." Deborah, unit 15

As described in Chapter 3, awareness raising in relation to palm oil is one of the central advocacy messages of the WWCT. Given this, it was surprising that more participants, particularly members, did not identify any behaviours in this realm (Section 6.3.2 will explore some of the possible reasons for this in more detail). Whilst at the zoo, the message in relation to palm is extremely general (see Section 6.3.2) and at best centred on encouraging visitors to buy a particular chocolate bar (see Chapter 7, Section 7.2.1.2). However, Deborah had clearly taken this a step further, to consider her whole shopping practice, rather than simply seeking out one specific product. It is clear that, for her, the reasons for changing her shopping behaviours are linked to her emotional engagement with the great apes she has encountered at the zoo. As will be seen in the next sub-section, this emotional engagement also drives Deborah to act in other ways which transcend the confines of the nudged citizen consumer.

6.3.1.4 Advocacy in the local community

Whilst uncommon across participants, a small number of zoo members sought to engage others including work colleagues, friends and local shopkeepers in issues of wildlife conservation. The focus of these actions was to share their

feelings about wildlife and/or to inform and encourage others to act to help endangered species. The members of unit 15 described different ways in which they undertook this advocacy role:

> *"I try, when anything's brought up about wildlife in school…to talk to the children and also to teachers about how I feel about things…" Deborah, unit 15*

> *"…regarding palm oil and things, I talk to people in shops you know, the shopkeepers, 'What about this soap?' you know, 'Has it got palm oil in?' if not that's a selling point for kind of high quality, hand-made soaps, would be a selling point if you could say that it hasn't and erm so yeah I do those things." Angela, unit 15*

As Deborah described, through her advocacy work she was able to co-opt others into providing non-financial resources for her local zoo:

> *"…at school I talk about things as well and try and encourage other people to do, you know I have a lady in the staff room who leaves things in the staff room for me to take to [her local zoo] for enrichment and stuff you know that she purposefully keeps it for me you know." Deborah, unit 15*

In this way these participants provide a form of outreach advocacy service for their local zoos, potentially reaching others who might not visit the zoo or be aware of how they could help support wildlife conservation. In addition, Diane and Janice from unit 15 discussed how they were the volunteer moderators for the Facebook group of a well-known UK wildlife attraction. Through this role they tried to raise awareness within the group's membership of the threats to endangered species in the wild.

Participants within unit 15 spoke enthusiastically about their experiences of their advocacy and other volunteering roles, and expressed how they felt that they were being positively received by others in regard to their efforts. For these participants their visits to the zoo, and their empathetic engagement, particularly

with the great apes, has influenced them to behave more as active citizens within their local communities, rather than nudged citizen consumers. Whilst such actions transcend the boundary of the pre-determined and prescriptive approach of the dominant behaviour change paradigm, it was striking that in discussing her behaviours, Deborah still conceived of mundane and everyday practices such as recycling as being the main way to help:

> *"…I mean I do a lot of recycling in order to you know help out that way and so that's probably the main thing that I do".*
> *Deborah, unit 15*

This is again reflective of the extent to which such practices are widely understood as being the 'appropriate' pro-environmental behaviours required of the individual.

In contrast to the participants in unit 15, for Alice, whilst encouraging people to act was the main way in which she felt she could act to support endangered wildlife, she expressed frustration that her experiences as an advocate were unsuccessful:

> *"I talk to other people and they just don't, they're not interested at all, and I don't know where it comes from, is it because I used to take my children when I was small?" Alice, unit 10*

In trying to make sense of the lack of other peoples' interest, Alice wondered whether interest shown by her family was due to the fact that she took them to the zoo when they were young. However, it was not possible within the bounds of this research study to carry out a more detailed exploration of Alice's experiences, relative to those of unit 15. If the zoo was aware of and/or actively engaged in supporting such local advocates, they may be able to provide some support or guidance to support participants such as Alice, which might be a welcome help to her endeavours.

Such advocacy related activities were only described by members. This may be indicative of a differential potentiality between those who visit the zoo frequently, and those visiting occasionally or as a one-off, in relation to the

types of behaviours that the zoo can hope to secure from its visitors. There was recognition by one non-member that this type of advocacy work is something that they could do back at their secondary school, where they were a pupil. However, this current research did not allow for a further follow-up to ascertain as to whether this intention was realised:

> *"I think what I could do when we go back to school in September I think I would be able to tell my friends what I've seen and how they can actually help and then I think if more people did that then it could spread and less animals would become endangered." Ellen, unit 12*

6.3.1.5 Pursuing an interest in wildlife

As discussed in Chapter 5, visitor units with young children identified the importance of the zoo as an educational resource, providing embodied encounters with a range of exotic wildlife, which help their children to appreciate and take an interest in animals from a young age. Some of these units identified how these visits stimulate the interest of their children, who are then keen to learn more about particular animals when they get back home:

> *"They've taken such an interest in different kinds of animals, like my older son will always go and draw them when he gets home and asks lots of questions. He's got this big book on birds [out of the library] at the minute because he just wants to look and see what different kinds of birds there are…and he's watched, especially with my dad, he watches nature shows." Amy, unit 9*

Jane, unit 11, described how her grandson Keith had taken a further interest in the rhino following visits to the zoo. During the summer of 2017 the WWCT had organised a 'Great Rhino Trail', a public art event in the parks and open spaces around Torbay and Exeter. It was comprised of individually hand-painted, life-size rhino sculptures, with the aim of highlighting the severe conservation threats facing wild rhinos. As part of the trail, unpainted, smaller-scale versions of these model rhinos were available to purchase from the Paignton Zoo shop, something which Keith had coveted:

"He wanted to have one of those paint your own rhinos and I thought well you know it's £20 and I said well if he was going to take the time to paint it, cos normally it's just slap dash, and he didn't get one and he didn't get one, and then he got one at Christmas, his face was so thrilled cos I put 'You have now found the last rhino written on it' and he took so much care over it, which surprised us both, didn't it." Jane, unit 11

"Yes it was real surprise that was." Kenneth, unit 11

"And he's got that on his mantelpiece at home and you know that rhino is very special." Jane, unit 11

Photograph collection 6.1 From left to right: The Great Big Rhino Trail at Exeter St David's Station, summer 2017; and 'Paint Your Own Rhino' kits for sale at Paignton Zoo (author photographs).

Whilst this could not be classified as learning in the same way as Amy's children, Keith's desire, care and attention to the model rhino is indicative of how his visits to the zoo stimulated his interest in this particular endangered species.

The ability of the zoo visit to stimulate interest in and/or a desire to learn more about the animals encountered was not restricted to family units with young children. Janice described how her frequent trips to the zoo led her to seek out information about animals in new ways:

"Yeah I think I definitely since I've started going to the zoo, I've thought about it an awful lot more than I would have done before and also finding information out and perhaps watching programmes that I wouldn't have watched before, reading a book that I wouldn't have read before, um, you know I think it has made a difference to me in that respect, it's made me think about it an awful lot more." Janice, unit 15

Unlike Janice, Laura had not been to the zoo for many years. However, the influence of her visit in relation to the animals encountered was similar, in terms of actively choosing to watch a nature-related programme:

"…since going to the zoo I definitely made sure I watched Planet Earth 2 and I took a great deal of interest in that….I wouldn't really watch it too much, a programme like that, I mean I have done in the past but I definitely, since going to the zoo, thought I will watch that because you know it sort of rekindled my interest in it." Laura, unit 2

As the other member of unit 2, Christina also described how the zoo visit had rekindled her interest in wildlife, particularly in relation to a desire to take practical action:

"… I did think 'Oh what could we all do?', what can we do, like get together as a team and do some sort of challenge, yeah...because we did a sort of community project about three years ago where we built a natural pond." Christina, unit 2

Their experiences with animals at the zoo influenced children, young people, and adults, to pursue an interest in wildlife in a variety of ways. Whilst these are not actions with a direct link to supporting endangered species, they can be understood in terms of the influence of their emotional engagement with animals at the zoo, building their interest, engagement in and care, in relation to animals, with the potential to influence actions in support of wildlife in the future.

6.3.1.6 Family visits

Chapter 5 described the importance that participants with young children attributed to the zoo visit as an educational experience. During both the go-along and post-visit interviews, participants with young children and grandchildren described visits to the zoo with these and other family members. Whilst there was clearly an important social aspect to this, it was apparent that these parents and grandparents felt it was important for their children and grandchildren to experience animals at the zoo to help build their understanding and appreciation of them. In this way families visiting the zoo with this educational intention can be categorised as undertaking a pro-environmental behaviour.

The material presented in this section highlights the wide variety of ways in which the zoo experience influenced participants' behaviours beyond the zoo boundary. Opening up the framing of pro-environmental behaviours beyond prescribed and pre-determined categories enabled a much richer exploration of the ways in which this influence was expressed by participants. In the course of describing their pro-environmental behaviours, participants also expressed a range of issues which they felt were limiting their engagement in a wider range of pro-environmental behaviours. These factors will be identified and explored in the following section.

6.3.2 Factors limiting engagement in pro-environmental behaviours

Through the thematic analysis described in Chapter 4, four categories were developed to describe factors limiting the uptake of pro-environmental behaviours: (i) personal resources; (ii) access to information; (iii) habits and preferences; and (iv) wider systems and structures. These limiting factors can help to explain a lack of persistence between participants' experiences at the zoo, their expressed feelings towards endangered wildlife as a result of visiting the zoo, and what they felt they could do to help with wildlife and wider nature conservation. Each of these categories is described and explored in turn the following section.

6.3.2.1 Personal resources

Section 6.3.1 identified financial contributions as the most common behaviour amongst participants to support the work of the zoo. Some participants identified that they would like to give more money to support the zoo, but their financial circumstances meant that their capacity to do so was limited:

> *"...financially I'm not able to [give more financial support to the zoo], and I know that's probably the biggest help they could get…" Amy, unit 9*

Whilst financial contributions do not form part of the Trust's advocacy goals, the most visible and numerous signs on site at the zoo, positioned prominently on a number of animal enclosures, are designed to secure additional revenue from both the general public and local business. For the general public, this comprises animal adoptions and animal experiences (photograph 6.2 provides an example of this at the Giant Tortoise exhibit). The former, currently ranging in cost from £30-£75, enable people to adopt a chosen animal for a one year period, for which they receive different benefits, tied to the level of investment, but including elements such as: an adopter's certificate; adopter's name displayed in the zoo for 12 months; and a fact sheet/photograph of the chosen animal/soft toy of the animal (Paignton Zoo, 2019). The animal experiences, currently priced at £79, enable people to spend time with certain animals and their keepers, to feed and (depending on the type of animal), go into the animal's enclosure (ibid).

Photograph 6.2 Signage at the Giant Tortoise exhibit – from left to right: Tortoise Experience; Tortoise Adoption; and a standard information board (author photograph)

The focus on financial contributions is an illustration of the challenge of running a modern zoo, where income generation is essential to enable the zoo to deliver its multiple goals as a visitor attraction, education centre, and centre for conservation and research. The prevalence and prominence of such signs can be contrasted to the far smaller number of signs in relation to conservation advocacy activities and how visitors can help in non-financial ways, which are often located in less visible positions (as described in the next sub-section). Whilst no doubt an unintended consequence on the part of the zoo, this focus on income generation can be viewed as disempowering to participants such as Amy, who feel they cannot help in the way that the zoo is indicating and encouraging visitors to act.

However, Amy, alongside other participants, identified that they would be keen to provide support to the zoo in other non-financial ways, as Amy described in relation to the contents of her membership pack:

"But if there is something we can do that doesn't involve giving more money, then that would be good to know. Maybe as part of our membership, maybe they could send us say, you know 'Thank you for supporting these animals, this is what else you can do', you know then we've got that in our pack." Amy, unit 9

Whilst unusual, one member identified that, whilst personal resources were not the limiting factor per se in relation to providing financial support to the zoo, she was frustrated at the zoo for not providing clear opportunities for her to make further financial donations to their work. This member highlighted that if she understood more about the zoo's programme of in situ conservation projects, she and her husband would be happy to provide financial support:

"They're not using it [in situ projects] to draw people in. People like me are keen and willing to participate, but if we're not asked, we don't think that we can be involved in some way...we could sponsor some research abroad, but at the moment they're not tapping into their membership." Andrea, unit 6

The issue of a lack of knowledge from or at the zoo was identified in relation to providing support beyond financial contributions. It was also identified more broadly by participants as a reason for limiting their pro-environmental behaviours, as discussed in the following section.

6.3.2.2 Access to information at the zoo

A lack of information available on site at Paignton Zoo was the most commonly identified factor limiting participants' pro-environmental behaviours. This was a source of frustration to a number of participants:

"They're not capturing what they [zoo visitors] can do to help [endangered species]". Rebecca, unit 5

This lack of information was noted particularly in relation to palm oil. As highlighted in Chapter 3, like other zoos in the UK and internationally, the issue of palm oil is central to the WWCT's advocacy messaging.

As described in section 6.3.1, participants from unit 15 (members of other UK zoos) discussed how they had changed their shopping behaviours in relation to palm oil. During the go-alongs these participants talked about attending numerous talks and events at their respective zoos, where they learned about the zoos' conservation activities. It may have been that these talks and/or on-site information at these zoos has furnished them with more knowledge about palm oil, but it was beyond the scope of this current research to explore that in more detail. However, it was more common for both members of Paignton Zoo and non-members to explain that either they were not aware of the issue of palm oil, or that, whilst they might have some general awareness, the zoo was not helping them to understand why and how to act.

For Alice, until I raised the issue in the post-visit interview, she was not familiar with the palm oil issue, or the zoo's desire to engage its visitors with it. Highlighting that she had not come across any information about palm oil at the zoo, Alice asked me:

> *"…have I gone around with my eyes closed and missed something?" Alice, unit 10*

In a similar vein, Laura wondered:

> *"Maybe I wasn't looking in the right place but I don't remember seeing anything about that…" Laura, unit 2*

This might not be surprising for non-members such as Laura, for whom this was the first visit to a zoo for many years. Paignton Zoo is a large zoo, with various different routes taking visitors around, and Laura's visit did not encompass the whole zoo. However, for members such as Alice, who visit at least monthly, and who had asserted the value of the zoo in building empathetic connections with the conspecifics of the zoo animals in the wild, this was a rather unexpected response.

Unlike Alice and Laura, in cases where members did show some familiarity with the issue of palm oil, they did not feel that the zoo was providing them with information to help them engage in the issue or to take action in relation to it:

> *"…you kinda know that there are animals that are endangered, you kind of know that the zoo's trying to do something, but you don't really have any details, and then you know that palm oil's bad and recycling's good, but yeah it is that link, yeah it's not apparent." Jennifer, unit 8*

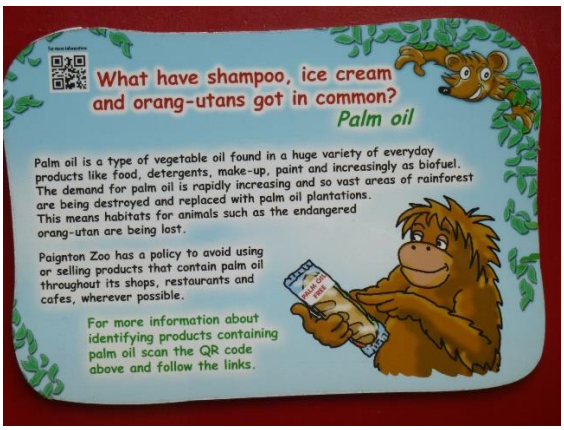
Amy had noticed that some items in the catering and retail outlets did not contain palm oil, but like Jennifer, she was not very sure about the detail of this issue. Whilst she also acknowledged that visiting the zoo with her young son was not necessarily conducive to spending time reading information boards, she went on to explain how the zoo could help to address this (an issue that will be discussed in more depth in Chapter 7):

> *"…I think if there was a way of providing more snippets – this is the animal, where they live, what's the danger they're facing, and also any suggestions about how we can help as people in Devon…" Amy, unit 9*

Following these discussions, I made a solo trip around the zoo to identify where information about palm oil was positioned. I logged this and reflected on it in my fieldwork diary:

Photograph: (left to right) Palm oil information board inside picnic shelter. Picnic shelter housing palm oil information board - the red building in the middle distance is the Ape House (author photographs)

The main information board about palm oil is positioned inside the small wooden picnic shelter set back from the main path, opposite the far end of the outside portion of the orang exhibit, remote from the Ape House, and close to the entrance to Lemur Wood. I had been passed it with most of my participants, but none of them had stopped to read it or remark on it. Their eyes were firmly fixed either on the orang enclosure or on entering Lemur Wood, depending on which way they were walking. I guess my presence may also have contributed to them not seeing or wanting to stop? There is no information about palm oil in the Ape House, where the majority of people congregate to watch the orangs and gorillas. I also came across a sign, which I had never noticed before (!) by one of the two main entrances to the restaurant. This is part of the 'Colin the Coati' trail (a series of signs dotted around the zoo, which highlight different environmental issues and how visitors can help). However, it's not well placed and given my experience, pretty easy to miss.



Photograph: (left to right) Colin the Coati Trail palm oil sign. Easy to miss – sign located to the right hand side of the restaurant entrance (author photographs)

The last sign about palm oil is at the tiger exhibit. It's on the upper gallery, so visitors have to walk up to this area in order to read it. I remember that unit 3 did use and read the interactive tiger exhibit, but when they talked about learning about palm oil during their visit, they only recalled the conversation they'd had with Louisa, the presenter about it in Lemur Wood. Overall, given how important the palm oil message is for WWCT, the on site information isn't great – not that well positioned, easy to miss, and in the case of the tiger exhibit in particular, a bit old and tired looking. They also don't give much specific detail about what visitors can actually do to help.

Excerpt 6.1 Exploring the availability and visibility of signage regarding palm oil at Paignton Zoo

[It should be noted that as of summer 2018, both the information board in the picnic shelter and the one by the tiger exhibit had been removed, in order to revise the information regarding WWCT's palm oil policy and its advice to visitors. They are now being updated as part of a new interpretation plan. This will mean that, in the future, the Ape House will become the main location for palm oil advocacy messaging.]

As my fieldwork diary excerpt identifies, whilst the zoo does have some information available about palm oil, it is not necessarily well-placed in relation to the animals that can be clearly connected with it, or in relation to its visibility. Reflecting on my palm oil information audit around the zoo, I found it easier to understand how Alice and other participants might have missed these signs.

Whilst unusual, Heather, when considering the issue of palm oil, highlighted that for her, the focus of her zoo visit was about seeing animals, rather than reading about them:

> *"I'm assuming what the zoo do is put lots of writing around the zoo everywhere and I don't really want to go to a zoo and be reading all the writing if I'm honest!" Heather, unit 13*

In this case, even if the zoo did have extensive and well positioned information regarding how visitors could help with efforts to conserve wildlife, it is conceivable that visitors such as Heather would not take this on board. Heather indicated that for her the zoo is less a site of education, and more one of entertainment (she and her family come annually to Paignton Zoo as part of their family holiday). This is once again reflective of the challenge faced by the modern zoo: balancing the demands of delivering education alongside entertainment.

Information boards are not the only way in which the zoo communicates messages about threats to endangered species and how people can play their

part in helping to secure their future in the wild. Each day there are a series of talks at different points around the zoo, which are advertised both on a large board as visitors exit the shop and ticket area, and by the animal exhibits where the talks take place. These talks are given by members of staff: a presenter from the Education team and/or a zoo keeper. They usually include information about the individual animals at the zoo, the threats faced by their conspecifics in the wild, and actions that visitors can take to help support these conspecifics and their habitats. They often include feeding of some snacks to the animals, to ensure that they are clearly visible, and often in close proximity to the visitors. Whilst these talks provide another opportunity for visitors to acquire information, it was common for the units with young children to highlight that the logistics of attending talks with them in attendance made it hard to take information on board. This was either due to being distracted by having to keep a close eye on the children, or simply not being able to hear what was being said over the noise of a crying child.

In the course of the go-alongs I observed that, whilst participants often looked at the board with the talk times on entry to the zoo, and expressed interest in attending one or more of the talks, they soon became caught up in the visit, and it was unusual for them to prioritise being at a particular exhibit in time for a talk. Therefore, attendance at a talk was more likely to have occurred by chance, as in the case of the one talk I did attend in the course of the go-alongs, with unit 13, as we happened to enter Lemur Wood near the start of a presenter/keeper talk. They had been happy to stop and listen as a red ruffed lemur had come down from the trees to feed, in close proximity to the onlooking visitors.

The Lemur Wood talk included information about the threats to lemurs in the wild from deforestation for cattle, charcoal, logging and palm oil. The presenter was keen to say how all the visitors present could help.

Photograph 6.3 In Lemur Wood – a presenter talking about threats to lemurs and how visitors can help (author photograph)

> *"…becoming a bit better with your shopping. Keep shopping at places like Waitrose, Co-op, Sainsburys, Asda, Lidl and Morisons, because most of them have at least committed to going 100% sustainable palm oil. So keep purchasing products from these companies…because we all we need to do is move to sustainable palm oil and we can help look after these beautiful animals. Unfortunately, areas the size of England are disappearing every year in our rainforest and we do need to stop that, and there are very easy things that you guys can all do and take home with you to try and prevent that." Presenter, Paignton Zoo*

Reflecting on this talk, unit 13 were able to recall that a list of supermarkets had been mentioned in the talk:

> *"I know that shopping at certain supermarkets who promote it, but I wouldn't be able to tell you which products have it." Heather, unit 13*

Given Heather's previous comment about not wanting to read information during the visit, the talks can provide another avenue for providing information for visitors. However, given the lack of talks attended during the go-alongs, it was hard to gain a general sense of what information the participants might have taken away with them regarding pro-environmental actions.

As is evident from the above passage of narration by the zoo presenter, the message in relation to palm oil was extremely general, and gave little sense that visitors need to do anything else other than continue to do their shopping in the usual way in one or more of most of the large supermarkets. The presenter was no doubt trying to make visitors feel good about where they shop already. However, with no sense of challenge to the visitors to examine their shopping practices in more detail, such a message is likely to lead to complacency regarding the need for any further individual action. From my own experience, the major supermarkets do stock a number of products which contain sustainable palm oil, but these are heavily outnumbered by products which do not. Therefore, as Deborah described in section 6.3.1, to avoid palm oil-based products requires a significant shift in shopping practice. In this instance the zoo again appears to be wrestling with the conflicting need to provide an enjoyable day out, where visitors feel good and will want to repeat in the future, alongside its ambitions to engage them in issues of wildlife conservation. In a face-to-face discussion with this zoo presenter on a separate occasion with unit 3 (see also Chapter 7, Section 7.2.1.2) a specific action in support of lemur conservation was identified in relation to the purchase of a specific chocolate bar containing sustainable palm oil. Alongside the generic talk, this approach is again reflective of the zoo's framing of behaviour change within a social marketing approach, and its framing of zoo visitors as citizen-consumers.

In the course of discussing access to information, a number of participants identified that they had found out information about wildlife conservation issues and particular pro-environmental behaviours from visits to other wildlife attractions, specifically The Eden Project, the National Marine Aquarium, and Prickly Ball Farm, and more generally through exposure to information on television and social media:

"So there's lots of different places you pick things up, like Christopher said on the telly or something someone's said or you've seen it somewhere else and you've got this whole package of things…and the zoo's part of that…it's constant little reminders, it doesn't all come from one place." Jennifer, unit 8

For these participants the zoo was considered as one of several places which could build their knowledge and understanding of environmental issues. However, from other comments discussed earlier in this sub-section, it is apparent that the participants would welcome more information being available to them at the zoo. For some, the zoo visit may be the only time that they are exposed to wildlife conservation issues, and thus the zoo cannot rely on other locations to furnish visitors with knowledge.

6.3.3.3 Habits and preferences

A small number of participants talked about how their existing habits and food preferences influenced their behaviours and prevented them from taking further pro-environmental actions. As described in Chapter 5, all members of unit 15 had expressed a strong emotional engagement with the great apes, and as section 6.3.1 highlights, they were keen to avoid palm oil in their product choices and to encourage similar behaviour in others. However, as Janice, unit 15 explained, whilst she did try to avoid palm oil, this was at times a difficult endeavour, which could be over-ridden by her enjoyment of particular foods:

"Well yeah I try to avoid palm oil, I do read the packet, and sometimes it's got palm oil in it and it's like 'Yeah, but I just want to eat it', well you do your best, I mean I know most bread has palm oil in it so even you know the fresh bread that you buy, but I do occasionally buy it." Janice, unit 15

Members of unit 15 also talked about the issue of meat consumption in relation to environmental issues, which they had become more aware of since attending a talk by Chris Packham. Whilst they felt that reducing or eliminating meat consumption would be an extremely positive move on environmental grounds,

and for the future conservation of the species they encountered at the zoo, Angela described her difficulties in relation to such an action:

> *"…I do think if I thought more carefully about it I could do it [not eat meat] and so it's shameful really isn't it that all I'm saying about animals, but I don't take that step." Angela, unit 15*

From the material presented in section 6.3.1, unit 15 are pro-actively engaged in issues of wildlife conservation. However, their discussion of their behaviours in relation to palm oil and meat consumption highlights the difficulties that can arise when considering changes in personal behaviours.

Whilst the behaviours of Janice and other members of unit 15 meant that they have reduced their personal use of palm oil via the products they bought, for others, the pattern of their shopping behaviours meant that they had not yet reached that point. In discussing the fact that she had as yet not actively sought out palm oil free or sustainable palm oil products, Karen explained:

> *"…when I'm shopping I'm set on what I normally buy and I forget [to look at product labels." Karen, unit 4*

6.3.3.4 Wider systems and structures

In the course of discussing the factors which limited their engagement in pro-environmental behaviours, many participants also reflected on the extent to which their individual actions had the capacity to effect the changes necessary to secure a positive future for endangered wildlife and the wider natural world. This sense of personal agency arose when considering the potential impact of their individual actions in comparison with the role of wider political and economic systems and infrastructures, and led participants to express a variety of feelings from helplessness and hopelessness, to frustration and anger. Through this discourse, participants provided an insightful critique of the limitations of focusing on the individual as the key agent for behaviour change to secure the conservation of the natural world.

Rashmi described her sense of helplessness when considering the relative impact of her actions on the natural world, compared with that of the business sector:

> *"For me, there's a slight sense of helplessness. You know you can do your bit at home, you can eat less diverse food and you can try and lead a more simple life that doesn't impact, but it does feel slightly helpless when it's, it's the supermarkets, it's the pharmaceuticals, it the big boys, it's the oil, you know. Where do you go with that?" Rashmi, unit 3*

Frances was more vociferous in her views regarding the impact and responsibilities of large corporations, expressing her frustration in the vested interests of large corporations in maintaining the current status quo:

> *"Well it's worse they can drive a car run on water, without petrol, they could get rid of petrol tomorrow and drive the car on water, but they won't do it cos it's owned by the companies that own the petrol, and they make billions and billions [laughs – sounds ironic].." Frances, unit 14*

In considering the role of business and production systems, Alice expressed frustration and annoyance in relation to her own everyday recycling practices, suggesting that the issue should be re-examined in the context of the manufacturing process, to reduce the need for recycling in the first place:

> *"…it's the recycling thing that annoys me a bit because they sort of get on to people for recycling whereas in actual fact I feel they ought to go to the manufacturers and say 'Look here, you've got far too much packaging here', you know, 'Why do you need it all?' That would cut down on a lot of it, wouldn't it?" Alice, unit 10*

Participants also expressed their lack of personal agency in relation to the role of governance, both at the local and international scale. In considering their recycling practices, a small number of participants described how differences in the recycling services provided by different local authorities were not helpful in

supporting their efforts to recycle household materials. Amy found such inconsistencies very frustrating in her efforts to recycle:

> *"I think the recycling bit is very difficult as well, as different areas are different, so you've got [town 1] with one, but where my mum lives, comes under [town 2], and their recycling is completely different. I've got totally lost when I'm up with her, and after all these years I still don't really know where it should go. That just seems crazy. They could easily have it as a national thing, this is how the recycle goes everywhere, make life easier for people to do." Amy, unit 9*

From a much broader perspective of the role of governance in relation to environmental issues, Frances expressed frustration at the lack of action in relation to wildlife conservation, which she felt could have a much greater impact than anything she could do as an individual:

> *"If every person in power in the world turned round and said 'No!', they could stop endangered species for…They could do it one day if they could just be bothered to do it, and they can't." Frances, unit 14*

As described above, it was common for participants to talk in general terms about their impacts on endangered wildlife, relative to that of wider political and economic systems. However, with regard to poaching of endangered species, an issue very pertinent to wildlife conservation, some participants also expressed a sense of helplessness in relation to their own actions:

> *"I feel a sense of helplessness really, I feel that as an individual there isn't much I can do about it, I can do as much as I can in terms of recycling and things like that, but how do you stop poachers? How can I stop poachers…?" Amy, unit 9*

Whilst unusual, some participants used the framing of larger scale issues of governance to externalise responsibility for action away from themselves, as they felt that the issues facing endangered wildlife needed to be addressed by the countries where the issues were happening:

"I think all the other countries need to sort of help as well don't they like sort of places in Africa and stuff. I don't know if they turn a blind eye or they haven't got the money or what but something needs to be done in them countries to try and um solve the problem…" Anthony, unit 13

Overall, participants' reflections on the limitations of their own actions in relation to wildlife and wider environmental conservation relative to that of wider political and economic systems, provides a clear challenge for the zoo. Through expressing their lack of personal agency, participants highlighted a disconnect between the conservation advocacy objectives of the zoo, aimed at the individual, and the zoo's stated wildlife conservation objectives in terms of endangered species conservation. Participants illustrated a great deal of awareness of the need to frame issues beyond the realm of the individual to address issues of wildlife conservation and environmental sustainability. There was also a recognition that this was not something that was in evidence at the zoo:

"…but I think there's also the political bit of the picture as well isn't there? It's not just about us as mere individuals of the public…It's all got to go hand in hand, and the zoos don't necessarily publicise that bit, the political bit, the bigger picture." Rashmi, unit 3

These insights highlight the limitations and potential pitfall of framing the zoo's conservation advocacy work within the dominant psychologically-based paradigm of the citizen consumer. As the participants highlighted, there is only so much they can do:

"…I feel sometimes it's a bit hopeless. We can't do very much and it has to be a bigger change, a more societal change." Sara, unit 1

Allied to this question of the need for a wider change in society, Amy highlighted the key challenge in securing a sustainable future for the natural world:

"…how do you actually live particularly well whilst protecting these at the same time?" Amy, unit 9

Thus, participants' critique of the limits of focusing on the individual as the key agent of behaviour change resonate with that of proponents of social practice theory, discussed in Chapter 2, who argue for a need to focus at the larger scale of systems and structures within which individuals carry out their everyday lives.

6.4 Concluding summary

The post-visit interview provided participants with a space for reflexive thought in relation to their experiences at the zoo. Zoo visitor research studies are predominantly contained within the boundary of the zoo, taking place during the zoo visit and/or at the end of the zoo visit. A few studies have sought to explore the meaning of visits to wildlife attractions in terms of aspects such as knowledge, attitudes and behaviours (Ballantyne et al., 2011; Packer and Ballantyne, 2010) and specific behaviours (MacDonald, 2015) at some point after the experience. However, it is generally uncommon for visitor research to extend beyond the boundary of the zoo. The findings presented in this chapter highlight the value of this methodological approach. Utilising the theme of persistence, this chapter has explored how participants' encounters at the zoo influenced their expressed feelings towards and behaviours in support of endangered wildlife and the wider natural world.

In considering the influence of the zoo visit on their expressed feelings towards endangered wildlife, the majority of participants demonstrated how their encounters with animals at the zoo were persistent over time and space beyond the boundary of the zoo visit, and also beyond the boundary of the animal encountered at the zoo, to focus on the conspecifics of those animals in the wild. The capacity for expressed feelings, in the form of empathetic emotions, to extend to these conspecifics was highlighted in Chapter 5 in relation to some zoo members, who visited frequently. Chapter 5 also identified that, at the time of the visit, it was more common for emotions in the category of 'concern, worry and sadness' to be focused on the animals encountered at the zoo. However,

during the post visit interview, in a reflexive space away from the immediate stimulus of the embodied encounter with the animal, this extension of expressed feelings to the geographically remote wild animal was demonstrated more widely, both by members and non-members. Expressed feelings towards these conspecifics can be understood in relation to their plight in the wild ('concern, worry and sadness' and 'empathy'), and the role of human activities ('anger and upset'). However, as in Chapter 5, empathetic emotional responses to the conspecifics in the wild were again only expressed by zoo members.

For some participants their emotions of 'concern, worry and sadness' were not expressed uniformly across endangered wildlife, and were restricted to the conspecifics of either only the animals they encountered at the zoo, or to particular animals at the zoo to which they attributed nonhuman charisma. Moving beyond the specific arena of endangered species, some participants highlighted how their encounters at the zoo also served to secure expressed feelings of concern in relation to the dominant paradigm embedded within western culture of human domination over nature. Such reflections provide an insightful counter to the criticism explored in Chapter 3 of the zoo as a place which serves to reinforce the human-animal divide. Whilst unusual in this research study, some of the participants' expressed feelings of concern in relation to endangered species were either limited to moments of encounter with animals at the zoo, or remained secondary to concerns about the wellbeing of individual animals encountered at the zoo. This is clearly of concern for the zoo in relation to the delivery of its conservation advocacy objectives, which are predicated on the zoo visit providing a springboard for concern about, and actions in support of endangered wildlife and wider nature.

Participants' concerns were mainly focused on endangered wildlife, rather than extending to encompass the wider natural world. This is perhaps unsurprising, given that the focus of the zoo visit, and the mechanism through which zoos endeavour to engage their visitors, is centred on encounters with exotic, endangered wildlife. This finding is of importance to the zoo, as it is common for the conservation of individual species and wider ecosystem health to be inextricably linked. However, given the level of concern expressed by

participants about endangered wildlife, there is an obvious opportunity for the zoo to capitalise upon these emotions, and to make clear and explicit links between individual species and wider ecosystem conservation. This will be explored further in Chapter 7.

Persistence in relation to the zoo experience was also evident when considering participants' pro-environmental behaviours, where participants described a range of behaviours which they could attribute to the influence of their zoo visit(s). Providing a broader framing of pro-environmental behaviours, beyond the narrow confines of the normalised understanding of pro-environmental behaviours embedded within the dominant psychologically-based framework for behaviour change, allowed for a more rounded consideration of the influence of the zoo experience in relation to participants' actions in relation to wildlife conservation.

Providing financial contributions was the most commonly identified way that participants felt they were supporting the conservation of endangered wildlife. This emphasis is reflective of the commodification of wildlife both in relation to the zoo, and the broader context of the neoliberal framing of modern-day nature conservation (Lorimer, 2015), where such financial contributions are vital to the continued existence of the zoo and its conservation work. For some participants, the provision of more information and opportunities to invest could potentially enhance their financial contributions to the zoo. However, for others, this focus can be disempowering, as they are unable to support the zoo in the way in which they understand is most desired or expected.

Despite the broader framing of pro-environmental behaviours within the post-visit interview, it was common for participants to identify behaviours associated with everyday practices of resource consumption and recycling as being the appropriate response in terms of their efforts to support conservation of endangered wildlife and the wider natural world. Such responses are indicative of the dominance of the prescriptive, psychologically-based approach to behaviour change, and suggest that, for some participants, their zoo

experiences served to reinforce the dominant narrative of what 'counts' as a pro-environmental behaviour.

Given the capacity revealed in Chapter 5 and in section 6.2 of this chapter for the zoo visit to influence expressed feelings in the realms of concern and empathy for endangered wildlife, the zoo is well placed to capitalise on this emotional proximity to geographically remote species, and perhaps seek to influence actions beyond the realms of the '3Rs'. Within zoo-based visitor studies, attention has not been given to considering how zoos could engage visitors in actions beyond this narrow framing. Indeed, one study by Esson and Moss (2014) identified the zoo as a context to reinforce, rather than challenge, everyday household practices. A window into this potentiality was provided by some members of Paignton and other UK zoos, who undertook an advocacy role within their local communities. For these participants, their relational engagement with both animals at the zoo, and their conspecifics in the wild, had influenced them to act in ways which can be understood in terms of active citizenry, as described by Crompton and Kasser (2009), where, in contrast to citizen-consumers, individuals undertake pro-environmental behaviours without recourse to repeated nudging.

Undoubtedly the WWCT would be delighted for its members (and other visitors) to undertake this type of advocacy role. Like many other wildlife attractions, the WWCT's visitor education and engagement activities take place primarily within the boundary of the zoo. Co-opting visitors to actively support the delivery of its conservation advocacy messages in the wider community could provide a valuable additional resource to enable the zoo to reach a wider cohort of people. In so doing the WWCT would move beyond the framing of its visitors as citizen-consumers, and encourage and support them to play an active citizenship role. However, as such behaviours were only described by frequent zoo visitors, with strong relational engagements with endangered wildlife, this suggests that there may be a differential capacity for the zoo to engage its visitors in such behaviours. In light of this a more nuanced approach to behaviour change at the zoo could prove valuable, which, based on the

frequency of visit and/or zoo membership, seeks to encourage and challenge visitors to move beyond the mundane and everyday practices of the 3Rs.

Moving beyond the bounds of specific, prescriptive behaviours, participants described how their experiences at the zoo led them to pursue an interest in wildlife through various avenues. Cultivating their interest in this way can be understood as a means to further their relational engagement with, and understanding of, wildlife and the wider natural world, both affectively and cognitively. The value of such behaviours aligns with the framework for behaviour change advocated by Crompton and Kasser (2009), and Crompton (2010), outlined in Chapter 2. Within this framework, an appreciation for the natural world is a central tenet in developing active citizens, who move beyond the realms of the nudged citizen consumer in relation to their pro-environmental behaviours and lifestyle. In this way the influence of the zoo visit can be framed in terms of a place which can help to facilitate behaviour change, rather than a place where changes in behaviour are necessarily the outcome of a visit.

In contrast, discussions with some participants revealed a lack of persistence of the zoo visit in relation to their pro-environmental behaviours. This phenomenon has occurred elsewhere in behavioural studies – the term Value-Action Gap (Blake, 1999; Kolmuss and Agyeman, 2002) is often used to describe the lack of continuity between environmental knowledge, awareness and pro-environmental behaviours. This notion is driven by the assumption that if the gap is ‘filled’ i.e. if the factors limiting individual behaviours are removed, then the desired pro-environmental actions can result. Conventionally the findings in this chapter could be viewed as examples of the value-action gap, providing a list of limiting factors, which then provide a basis for changing behaviours through addressing these factors. However, this chapter has also revealed the complexity of the limitations experienced by participants in relation to undertaking actions in support of wildlife conservation.

Some aspects of the gap relate to specific issues that the zoo could go some way to addressing, particularly in relation to access to information on site at the zoo. This issue of information provision will be explored further in Chapter 7. In

addition, the provision of non-financial ways to contribute to the zoo's conservation work to help balance the current focus on encouraging additional financial investment, could help to empower and encourage those visitors with limited financial resources. The current emphasis on additional monetary spend around the zoo could also have an unintended consequence in relation to the zoo's conservation advocacy objectives. It could lead visitors to assume that by paying to visit the zoo they had 'done their bit' for wildlife conservation, thus reducing the likelihood of engaging with the conservation advocacy messages, especially if they are not receiving other clear guidance as to how they might engage.

This chapter has also revealed aspects of the value-action 'gap' which are less easily addressed. Staying at the level of individual behaviours, whilst participants were able to undertake some pro-environmental behaviours, their existing habits and preference prevented them from taking further action. These difficulties can be understood as 'socio-ecological' conflicts (Barr et al., 2011), where individuals have the desire to do something positive for the environment, but existing practices lead to conflict and guilt. Whilst unusual, some participants externalised responsibility for the problems facing endangered species, a phenomenon which has been observed before in relation to climate change (ibid).

Transcending the individual scale, this gap can be understood in relation to the larger scale of the systems and structures within which individuals carry out their everyday lives. In considering their own capacity to make a positive contribution to the future of endangered wildlife and/or the wider natural world, a number of participants expressed a lack of personal agency in relation to their endeavours. It was common for this to be linked to their awareness of how their everyday lives were 'locked in' (Jackson, 2005) to wider political systems and their associated economic institutions. Through such reflections, participants provided their own critique of the limitations of the focus of the individual as the main agent of change, a recognition which resonates strongly with the work of Shove (2010; Shove et al., 2012) and other environmental social scientists working in the field of Social Practice Theory, discussed in detail in Chapter 2.

These reflections are also suggestive of the need for the zoo to revisit its focus on their individual actions as the means to deliver conservation objectives, and to embrace a broader and richer understanding of behaviour change both conceptually and practically.

In exploring the reasons for the gap between their expressed feelings towards, and actions in support of endangered wildlife, participants were able to suggest a variety of ways in which they felt that the zoo could help support them to undertake more pro-environmental behaviours. The following chapter (Chapter 7) will consider these in detail.

In the course of this chapter several possible challenges have emerged for the zoo in the delivery of its conservation advocacy objectives. These centre on the tensions exposed between its need to generate income and provide entertainment as well as engaging its visitors in issues of wildlife conservation. The next empirical chapter will also explore this and reveal other challenges for the zoo as it seeks to actively engage its visitors in wildlife conservation.

Chapter 7: Opportunities and challenges

7.1 Introduction

This is the final chapter of the three empirical chapters, which aims to address the third objective of this research study. It explores ways in which the zoo can increase visitor engagement in pro-environmental behaviours in support of the conservation of endangered wildlife and the wider natural world. Through this it illustrates why a considerable shift is required in the way visitor engagement is delivered at the zoo to secure these behaviours and thus help in the delivery of the zoo's wildlife conservation mission.

The material presented in this chapter is primarily derived from the thematic analysis (described in Chapter 4) of the post-visit semi-structured interviews with participants that were conducted up to three weeks after the zoo visit. It also draws on the material presented in Chapter 6, particularly with regard to the limiting factors identified at the individual and wider systems scale, which participants identified as hindering their capacity to engage in pro-environmental behaviours. As has been the case in the preceding empirical chapters, this material is also complemented with extracts from my research diary, and on my experiences as the reflections of my role as the WWCT's part-time Advocacy Officer. In addition, it draws on my experiences of visiting two North American Wildlife attractions in June 2017, described in section 4.5.4., both in terms of experiencing these sites as a visitor, and in engaging with senior managers involved in visitor education and engagement at each location. These experiences provided me with additional insights into approaches at different zoos to engaging visitors in pro-environmental behaviours, which aided in further reflection of the empirical data.

Chapter 6 identified the way in which zoos are locked into an approach to behaviour change centred on social marketing. In addition, it identified a lack of research beyond the zoo boundary with regard to the influence of experiences at the zoo on visitors' expressed feelings towards and pro-environmental behaviours in support of endangered wildlife and wider nature. There is also a paucity of research exploring, from the perspective of the visitor, how the zoo

could further support and encourage them to actively engage in wildlife conservation. Visitor surveys in relation to the zoo experience are commonly undertaken during or at the end of the visit, via touch-screen or paper-based surveys, and focus on the visitor experience of different aspects of the visit, including: animal exhibits; food and retail outlets; parking; toilets and other facilities. This approach is exemplified by the Paignton Zoo Visitor Survey 2018/2019 (Appendix 15). However, there is a lack of enquiry regarding the zoo experience in relation to the delivery of conservation advocacy objectives. Chapter 6 also revealed the nature of the factors that can limit engagement in pro-environmental behaviours beyond the boundary of the zoo. This chapter builds on this by exploring the ways in which participants identified how the zoo could help encourage and support them to play a more active part in wildlife conservation. This support is considered at two spatial and temporal scales – both during the zoo visit and beyond the boundary of the zoo, once participants return to their everyday lives.

The chapter starts at the zoo, with a description and discussion of the range of on-site measures, which participants identified would help to increase their understanding of the plight of endangered species and their ability to undertake pro-environmental behaviours. It then moves beyond the boundary of the zoo and the zoo visit. Here it explores how participants felt they would benefit from ongoing engagement with the zoo and its animal inhabitants, to help the influence of the zoo experience to persist over time and space beyond the day of the zoo visit. Finally, the chapter also draws on the issue of scale in relation to pro-environmental behaviours highlighted by participants in Chapter 6 i.e. it explores how the zoo might address their concerns regarding the impacts of wider systems and structures on endangered wildlife and the wider natural world. Whilst this chapter discusses findings of visitors' observations in relation to Paignton Zoo, there is scope for extrapolation to other wildlife attractions.

Using the empirical data, this chapter will argue that the themes of 'opportunities and challenges' are central to understanding the third research objective. With regard to opportunities, all visitor units were keen to suggest ways in which their experiences at the zoo, and/or measures beyond the

boundary of the zoo visit, could help them to further increase their engagement in wildlife conservation. Each opportunity presents a means to potentially enhance the ability of the zoo experience to influence visitors' feelings and/or pro-environmental behaviours in support of wildlife conservation. However, in terms of their potential implementation, each also presents a number of challenges for the zoo. These centre on strategic considerations for the zoo in relation to: (i) its approach to behaviour change; and (ii) organisational governance. With regard to behaviour change, these considerations include both the zoo's engagement with visitors, and the need for a more politicised, lobbying role, which would enable the zoo to exert an influence beyond its boundaries. Issues of governance centre on the generation and investment of financial resources to deliver its four aims: entertainment; education; conservation; and research.

7.2 Opportunities and challenges: on-site at the zoo

The majority of visitor units suggested a range of measures which could be available on-site during the zoo visit, which they felt would help to increase their ability to undertake pro-environmental behaviours. These measures centred on providing access to particular types of information. This is perhaps not surprising, as Chapter 6 highlighted that a lack of information on site was the most commonly identified factor limiting participants' pro-environmental behaviours. A desire for information was identified in relation to three aspects: (i) portrayal of threats to endangered species, (ii) actions to help support endangered species, and (iii) the conservation work of the zoo. In addition to considering the type of information available, many visitor units also discussed the ways in which the zoo could impart this information to ensure that it was easy to access and engage with during the zoo visit. Again, this might be expected, as Chapter 6 also highlighted a lack of visibility of information at the zoo. Four main approaches to imparting this information were identified: (i) text-based information boards; (ii) mixed-content exhibits; (iii) electronic media; and (iv) interactions with zoo staff and/or volunteers.

The following sections explore the three aspects of information provision that participants identified that they would welcome on site at the zoo. In the course

of discussing each aspect, the four main approaches that they identified for imparting this information are, as appropriate, also described and discussed.

7.2.1 Accessing information during the zoo visit

7.2.1.1 Portrayal of threats to endangered wildlife

A number of visitor units expressed a desire for the zoo to provide more information about the level and nature of the current threats to endangered wildlife. Highlighting the seriousness of the situation was felt to be compelling in terms of motivating people to take action:

> *"…it'd be good to know about what's happening [for endangered species], how bad it's getting, their [endangered species] population and what you know 20 years from now they could all be extinct if we don't do something now and that has more effect on me I think and how bad things are for them…" Christopher, unit 8*

At present at each animal exhibit at the zoo there is a standard information board. The information displayed on these boards is in line with the Zoo Licensing Act (1981), which requires that as a minimum, information describing the following elements be included: species name, (common and scientific); natural habitat; biological characteristics; and details of conservation status. At Paignton Zoo, the conservation status is shown by a diagram of where the species is placed within the IUCN (International Union for the Conservation of Nature) categorisation of endangered species (Photograph 7.1). There is also a small infographic to indicate current threats to that species, and a very brief summary of current conservation work being undertaken by the zoo community for this species.

Photograph 7.1 A standard information board at Paignton Zoo for the eastern bongo, providing details of the level and nature of threats to the species (author photograph).

Whilst these information boards present one approach to portraying the extent and nature of threats to endangered species, a number of participants felt that it was necessary to provide visitors with more overt and visible information. A need for this information to include "harsh" images and information was a recurring theme as a means to confront visitors with the reality of the threats to the conspecifics of the animals they were encountering at the zoo:

> *"I think people do need harsh facts, a harsh reality check, if you don't stop doing this, this is what's gonna happen." Julie, unit 12*

The need for a "reality check" was also echoed by Christopher, when considering how encountering animals at the zoo might be perceived by visitors, in this case his two young daughters:

> *"…cos if you just see them in a zoo you just sort of, for the girls [his two young daughters] I think they just think 'Ah they're just safe…they'll always be there'." Christopher, unit 8*

During my role as WWCT Advocacy Officer, I had become aware of a recurring narrative of frustration from staff across a variety of departments regarding the visitor focus on the wellbeing of individual zoo animals, rather than on the plight of their conspecifics in the wild. Excerpt 7.1 from my research diary provides an account of this narrative from a member of staff, during a presentation about my research study to the Education and Field Conservation and Research departments.

> Today I did a presentation about my research to the Field Conservation and Research and Education teams. I talked about where I'd got to in my research (now in phase 3 of data collection) and highlighted some of the issues that seemed to be emerging. So I talked about various things, including the focus of some participants on the wellbeing of the zoo animal, and the focus of others extending to the conspecifics in the wild. James got quite heated at this moment, highlighting that the wellbeing of animals in the wild is generally far worse than that of animals in the zoo. He then went on to wonder about how to get this across to people, acknowledging the difficult job the zoo has of providing an entertaining and engaging experience with animals and balancing this with the realities of the lives of many animals in the wild.

Excerpt 7.1 Discussing issues of animal wellbeing at the zoo and in the wild.

Whilst the provision of harsh imagery may serve to focus visitors' attention on the plight of endangered species in the wild, James' comments highlight the challenge for the zoo in responding to the desire expressed by some participants for challenging images and information in relation to human threats to wildlife. Like James, participants also acknowledged that there was a balance to be struck between enjoying the day out at the zoo, and coming to terms with the realities of endangered species conservation. Clearly there was a desire and willingness amongst the majority of participants to face up to the threats that humans pose to the natural world, and to challenge the zoo to move beyond the scientifically-based and rather abstract portrayal of these threats. However, it was also identified that the cultural norm of the zoo as a 'fun day out' was not necessarily conducive to presenting visitors with potentially challenging imagery of animals in danger or distress:

"Cos then they won't go back, cos you've upset 'em, cos you've got to do it in that, it's got to be emotional attachment and it's got to be a positive one to make you go back." Naresh, unit 5

"I suppose that's the question you need to ask isn't it? Do you want them to leave the zoo concerned, cos you don't go to the zoo to get concerned." Naresh, unit 5

These concerns were expressed most frequently in relation to children and young people, and the appropriateness of exposing them to difficult and potentially upsetting images. However, the extent to which such imagery was felt appropriate for younger people was contested, as shown in the following exchange between Rebecca and Naresh in relation to raising awareness of the ivory trade:

"…you wouldn't want to show that in a kid's kind of environment, where you want a kid to kind of enjoy being at the zoo rather than "This man's cutting off…..//" Rebecca, unit 5
"Yeah but you want the kid to be politically aware." Naresh, unit 5

In this way participants revealed their understanding of the challenge to the zoo in striking a balance between the delivery of their aims in relation to visitor entertainment and conservation advocacy.

During my research trip to Monterey Bay Aquarium I had the opportunity to discuss the issue of the portrayal of threats to wildlife with a member of the aquarium's senior management team. Excerpt 7.2 from my research diary describes this meeting in the context of a particular engagement with a challenging image.

I mentioned that I'd been to the Albatross Encounter at the Aquarium the day before. This involved the presence of a single Laysan albatross called Makana, who had been rescued from the wild and taken to the Aquarium. She had a broken wing, which although had mended, meant that she lives permanently at the Aquarium. During the five minutes or so of the encounter, the presenter talked about Makana, and the threats posed to Laysan and other species of albatross, not least through plastic pollution of the marine environment. A large screen projected various images to accompany this presentation, and for a short moment there was an image of a large, fluffy, albatross chick, with a large piece of plastic protruding from its beak. This image elicited gasps and noises of concern from the audience (which was predominantly families with very young through to teenage children). Reflecting on this talk, Jane said that the inclusion of the image of the albatross chick had merited a great deal of angst and discussion within the Aquarium, from the staff presenters to the senior management team. On the one hand there were concerns that it might upset or 'turn off' the audience, but on the other it was felt it was important to include it, to show people what can happen to their plastic waste. By not dwelling on the image, and presenting it within a wider context of albatross ecology and how people can act to help with the Aqaurium's conservation efforts, they hoped that they were striking a good balance. The visitor evaluation indicated that they were managing to achieve this, as this experience got a very strong response of compassion from the audience.

Makana the Laysan Albatross during the Albatross Encounter at Monterey Bay Aquarium (author photograph).

Excerpt 7.2 Discussing the difficulties of showing potentially distressing images at Monterey Bay Aquarium.

My discussions at Monterey Bay Aquarium highlight the challenge that the depiction of potentially distressing wildlife images presents for such wildlife attractions, as they seek to strike a balance between positive visitor encounters with wildlife and their engagement with the realities of human impacts on endangered species. The Aquarium put a great deal of thought into whether the image of the albatross chick should be included. Having decided to do so, further consideration was given as to how this image was contextualised within

the wider visitor experience, which also provided positive images and messages regarding albatross conservation. In addition, the experience was mediated by staff and volunteers who engaged with visitors before and after the event, and were happy to answer any questions.

There is an almost complete absence of imagery graphically depicting threats to endangered species at Paignton Zoo. Within the Rhino House, until 2017, there was an interactive exhibit which explored threats to the rhino, including poaching for their horns. By pressing a button, different images lit up on the exhibit. Amy, who has visited Paignton Zoo since childhood, recalled her first encounter as a young girl with a rather graphic image of rhino poaching contained with the exhibit, when she was a child:

> *"And it [rhino interactive exhibit] lights all the pictures up, the bottom picture of all of the horns and stuff, that was always there when I was a kid, and I looked at it once and I really studied it once and that really impacted on me as well, that people really do that, and that did actually make me much more aware of the plight of the rhino and what people are willing to do, and now I kind of want the boys to look at that picture, but at the moment I'm like, leave that last one, look at the other pictures, but just don't look at the bottom one, because I remember looking at that as a kid and it upset me at the time…but then it's kind of good for them to feel that in a way because they might then become more aware of it themselves, but I think I might save that for later". Amy, unit 9*

Amy's experience is indicative of the potential of harsh imagery to increase awareness and understanding of threats to endangered species, but as with other participants, she describes an uncertainty about the appropriateness of such depictions for her own children, due to her remembered emotional response as a child.

[Note: the interactive exhibit was removed due to its age and deteriorating performance. It has been replaced with a new display highlighting the issue of

rhino poaching, as shown in Photograph 7.2. Whilst this display does include a fake rhino horn, there is lack of any graphic imagery around the killing and removal of horns from rhino].

Photograph 7.2 The current display about rhino poaching inside the Rhino House (author photograph).

7.2.1.2 Engaging visitors in actions to support endangered wildlife

In addition to providing a greater understanding of the threats to endangered species, the majority of participants were also keen to find out more about how they could actively engage in supporting endangered wildlife. Given that the most commonly described limiting factor to participants' engagement in pro-environmental behaviours revealed in Chapter 6 was a lack of knowledge and information on-site at the zoo, this was an understandable desire. The wish for more information was comprised of two main aspects (i) specific information about how to help; and (ii) understanding more about the conservation work of the zoo.

(i) Understanding how to help support endangered species

Some participants identified the issue of their geographical remoteness from the conspecifics of the animals encountered at the zoo living in the wild. Whilst

Chapters 5 and 6 have identified how encounters with animals at the zoo can facilitate an emotional proximity between visitors and these conspecifics, their geographical remoteness presented an issue when participants came to consider what they could do help:

> *"I think when you see very exotic animals there is a tendency to feel that well, that's a very long way away from us, because it's almost saying 'Well that's so far away what can we possibly do about it?' " Rashmi, unit 3*

Responding to her own thoughts on this subject, Rashmi, alongside other participants, was keen for the zoo to provide a clearer understanding of how the natural world is interlinked from the local to the global scale:

> *"…bringing that [endangered species] closer to home, sort of seeing that whole environmental thing, maybe, you know, how each part of the ecosystem is dependent on the other, I don't know, making more of a story that fits together instead of 'These are the lions, these are tigers'." Rashmi, unit 3*

In addition to enhancing awareness of the links between their everyday activities and the plight of endangered species, it was common for participants to express a desire to have more specific information available on site to explain how they could help with the conservation of the conspecifics of the animals they encountered at the zoo. In considering their need for further information, participants tended to focus on a desire for the zoo to provide information regarding specific pro-environmental behaviours: in essence some form of "What you can do" message. As discussed in Chapter 6, this is perhaps reflective of the dominance and acceptance of the psychologically-based approach to behaviour change within UK government policy, with the visitor in the role of citizen-consumer, awaiting instruction from the zoo as to what pro-environmental actions they should take. In addition, it was indicative of a lack of knowledge of what they could do to help endangered species beyond the scope of household practices related to resource consumption, coupled with a sincere wish to take action. This desire for more information was also interlinked with a

discussion of the approaches to imparting such details, which participants felt would be the most beneficial and helpful.

Some participants were keen for text-based information to be provided at the animal exhibits:

> *"…just seeing that information by the animals in writing, it would be useful to have it marked out by the animals I think, even if you know it's just one product sort of thing by each animal that you could change to help or something to help, I think that would be quite a useful thing actually." Karen, unit 4*

At present the most prominent and prevalent signs at the animal exhibits relate to financially-based support for wildlife conservation through animal adoptions and animal experiences. In considering this text-based approach, some of these participants also identified that displays that included textual information alongside images and other resources to explain the issues and how they could help, would be valuable. Describing the type of display they would welcome, a number of participants, both members and non-members, reflected on previous visits to Living Coasts (the WWCT's wildlife attraction approximately 5 miles from Paignton Zoo), commending the clarity of its display regarding issues of plastic pollution of the marine environment and what they could do to help. This display is comprised of: textual information; graphics; examples of the types of plastics found in the marine environment; and actions that visitors can undertake to reduce and/or prevent their plastic waste entering the marine ecosystem. It should be noted that this recall of the issue of marine plastics from Living Coasts pre-dated the screening of Blue Planet II on the BBC from October 2017-January 2018, which led to a wide-scale increase in public awareness of this issue.

Photograph 7.3 The marine plastics display at Living Coasts (credit: Living Coasts)

Suggestions regarding the provision of information were firmly rooted in what can be considered as a traditional approach to information communication at wildlife attractions i.e. text-based information/interpretation boards. Whilst unusual, some consideration was also given to electronically-based media, in particular the potential of Paignton Zoo mobile application, launched in February 2017 (Paignton Zoo, 2017), which was prior to the second stage of the fieldwork for this research project. Having used this application during a recent visit to the zoo, one of the members expressed their disappointment in its content, as they felt it had a great deal more potential to convey additional information to visitors in an accessible way:

> *"…I know there is an app for the zoo, but there could be a lot more on the app, cos when I downloaded it I thought 'Oh this'll be brilliant', but it's pretty much the same as what's already written on the boards by the animals, I think that could be used a lot better, and if it could be interactive, so as you're walking around you've got the little map that says you are here and you can bring up little bits about the animals and how you could help….so you can learn more about the specific animals that are here as well as linking that to the animals that are in the wild and endangered…" Karen, unit 4*

A number of participants felt that the provision of textual information alone was insufficient. As additional means to convey information, participants identified that they would welcome the opportunity to have someone to talk to during the zoo visit, to answer questions and to provide more detailed information about how they could help support endangered wildlife. The value of having such a person to talk to was exemplified by Rashmi's experience at Lemur Wood, where she and her family had the opportunity to talk, one-to-one with one of the zoo's presenters, which provided her with the most memorable aspect of her zoo visit:

> *" … there was somebody there just really talking about it [threats to lemurs and the palm oil industry], I think that was absolutely brilliant. I think you need to really spell it [threats to lemurs and the palm oil industry] out, like she was doing. She [presenter in Lemur Wood] had a great way of, she wasn't nagging or telling you, she had a really positive way, she was sort of saying 'This is what you can do' you know it wasn't very much, right enough, buy the right sort of chocolate. It was brilliant, to have people there that you could ask questions of, I don't know I presume that's expensive, but it would be a great addition to the zoo experience, probably." Rashmi, unit 3*

This informal discussion can be contrasted with the information that the same presenter was able to impart during the generic, daily talk provided for visitors in Lemur Wood discussed in Chapter 6. Whilst this generic talk provided details of the impacts of the palm oil industry on wildlife, there was a lack of specific guidance as to how visitors could help to avoid purchasing and using products containing palm oil. Instead, visitors were reassured that by shopping at most of the major supermarkets, which have committed to sourcing sustainably produced palm oil for their own products, they were doing 'their bit' to address the palm oil issue.

Christopher and Jennifer from unit 8 also described how much they had enjoyed and benefited from their informal discussions with zoo keepers and zoo research staff on site during their visits to another UK zoo. This had enabled

them to learn more about wildlife conservation and research projects based both at this zoo and in overseas locations. However, in contrast, on their visits to Paignton Zoo, they felt there was a noticeable lack of opportunities to engage with staff in a similar way, describing the zoo staff as: "…*not very face to face*." Jennifer, unit 8.

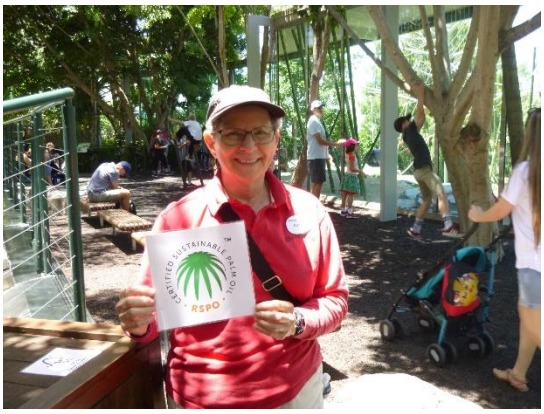
On the day of the go-along with visitor unit 15, a zoo volunteer was on site in the Ape House. Commenting on the presence of this volunteer, Deborah and Diane, unit 15, also described how they enjoyed opportunities to talk with volunteers during visits to a zoo:

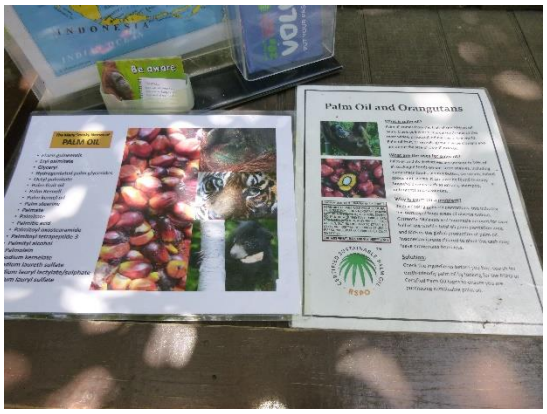
> *"It is nice having the volunteers scattered about places who know what they're talking about, that's always good, you get to know the animals better…//" Diane, unit 15*

> *"And also, cos the zoo keepers don't often have the time to stop and talk to you, you know, so having the volunteers there is kind of almost the next best thing isn't it." Deborah, unit 15*

Whilst Deborah clearly appreciated the presence of volunteers, it is interesting that she did not perhaps view them equally as a potential source of knowledge in comparison to talking with the zoo keepers.

My own experience of an informal conversation with a volunteer at San Diego Zoo during my research trip in June 2017, served to reinforce for me the value of such personalised contact in raising awareness of threats to wildlife and supporting visitors to take action (Excerpt 7.3).





Photograph: (left to right) San Diego Zoo volunteer at orang-utan exhibit holding the RSPO sustainable palm oil logo. Resources to learn more about palm oil (author photographs)

Going around the zoo today I noticed that at each exhibit and at other points in between, there were a raft of highly visible zoo staff/volunteers in red shirts. They tended to have small trolleys with them, on top of which they exhibited a range of things – animal skins, skulls, books on animal ecology, information leaflets about threats to wildlife and so on. It turned out that these were all education volunteers (called 'docents' in the USA) and I had the pleasure of having a long chat with Rita, one of docent team, at the orang-utan exhibit. Whilst I know quite a lot about orang-utans and the threat posed by the palm oil industry to their habitat, I found it extremely interesting and informative to talk to Rita. She was able to answer my (many!) questions about the individual orangs in the exhibit – age, gender, diet, wellbeing; the role of the zoo in orang-utan conservation breeding programmes; and also to talk me through the resources on her trolley relating to palm oil – the problems and what individual zoo visitors could do to help, from product choices to actively engaging with suppliers to request the use of sustainable palm oil. She was also knowledgeable about the work of the Roundtable for Sustainable Palm Oil (RSPO) and its certification scheme.

Excerpt 7.3 Discussions with a docent at the orang-utan exhibit, San Diego Zoo

As was the case for Rashmi's visit to Paignton Zoo (see above), this was (alongside my encounter with the polar bear described in Chapter 5), the most memorable aspect of my visit to San Diego Zoo. And like Rashmi, my experience is indicative of the benefit of having someone to talk to on site about pro-environmental behaviours and wider issues of wildlife conservation. A further added bonus was Rita's ability to talk in detail about the individual orang-utans at the zoo. Chapter 5 identified a recurring narrative of concern regarding the wellbeing of individual animals encountered at the zoo. Having trained volunteers on hand provides a resource for visitors to ask questions and potentially to address emotions of concern or worry, stimulating an alternative discourse around the animals at the zoo.

However, at the time of this research study, the presence of zoo staff and/or volunteers at exhibits is limited at Paignton Zoo, in terms of the number personnel, the frequency of their presence, and the number of exhibits at which they are present around the zoo. The zoo does have a volunteer team, but on a very small scale in comparison with that at San Diego Zoo. Rashmi's presumption regarding the resource implications of providing such face-to-face contact, pinpoints the challenge that this presents to the zoo in terms of its resource availability and allocation. It would require a considerable investment in staff time and other resources to develop a team to the level I experienced at San Diego. However, the ability to provide more opportunities for visitors, perhaps in particular local zoo members, to volunteer, could provide a way for visitors to donate their time in support of the zoo's conservation advocacy work. This might help to encourage and empower visitors like Amy, who identified in Chapter 6 how they would welcome non-financial ways to help the zoo.

From their reflections regarding access to information on site during their zoo visit, it is evident that participants would welcome a range of approaches on site at the zoo as a means to convey information about how they can engage in pro-environmental behaviours. In the course of writing this empirical chapter, and in my part-time role as Advocacy Officer, I participated in the bi-annual meeting of the WWCT's Advocacy Group. During this meeting I raised the issue of how we convey information to visitors regarding our conservation advocacy messages. In response to this question there was a repeated narrative from both the education and communications teams about how the new website (under development at that time, as part of the re-branding of the WWCT as the 'Wild Planet Trust'), would be the key resource for visitors to find out more about what they could do to support endangered species conservation. This struck me as being rather at odds with the responses of my participants on this matter. I was also quite frustrated by the zoo professionals' didactic approach, making decisions about channels of communication, rather than seeking to engage in any way those that they wished, very sincerely, to influence.

Whilst this sub-section has indicated a need for more on-site information regarding specific pro-environmental actions, a small number of participants

expressed a desire to have a more active engagement with the zoo's conservation work. This is explored in the following sub-section.

7.2.1.3 Increasing understanding of the work of the zoo

It was quite common for members and non-members to identify that they would welcome opportunities to engage more personally with the zoo staff as a means to understand more about the conservation of endangered species, and the role(s) they might play in supporting this. Currently Paignton Zoo does not have a mechanism to facilitate this. However, as members of other UK zoo, all four participants in unit 15 described how they had benefitted from talks provided on a monthly/bi-monthly basis by their respective zoos. They had all found these particularly valuable in learning about overseas conservation work.

Andrea, unit 6, described how much she would welcome the opportunity to learn more about the WWCT's conservation work, and how they might be able to become actively engaged in supporting it:

> *"I think there are lots of willing folk out there, but they've never properly been approached. And if they [the zoo] had an hour here and an hour there on certain days, I think for people like us who are members, we'd just be absolutely made up about it, it would be just wonderful… I know they send people off and I would love to hear firsthand from the people involved about their conservation work overseas." Andrea, unit 6*

In identifying the potential for such visitor-zoo engagement to increase awareness of, and action in support of, endangered species conservation, Christopher described how they felt it could encourage a variety of responses from visitors, including financial donations, and in-kind support:

> *"…if they had even done like a talk about what Paignton Zoo is doing [regarding endangered species conservation] I think a lot of people would sort of think 'Actually I wanna do that' and see what, and have a little donation thing at the end of it sort of thing, I think they'd [the zoo] be able to raise a lot more money or even get people involved in certain things and people would*

want to volunteer and sort of say 'I'll be up for doing this or…' ".
Christopher, unit 8

The provision of such opportunities could help respond to some of the limiting factors identified in Chapter 6, regarding a desire to know more about how the zoo uses visitor income in support of its conservation work, and opportunities to support specific projects. Participants from unit 15, who were members of other UK zoos, spoke highly of the talks and events provided for their memberships, which had given them greater insight into the challenges of endangered species conservation. Alongside this, such engagement could provide opportunities for the zoo to promote and recruit volunteers, providing a non-financially based activity in support of wildlife conservation.

During my research trip to Monterey Bay Aquarium, I participated in a 'Sea Otter Tour' which enabled me to talk with staff and volunteers involved in sea otter conservation. The following excerpt from my research diary highlights the potential of such personalised engagements to provide a greater understanding of the nature of the aquarium's conservation work and the ways in which the general public could help support it (Excerpt 7.4).

Photographs: (left to right) Image from screen shot of sea otter pup being hand reared until old enough to join its surrogate mother. On the roof of the aquarium – the circular tank behind the yellow buckets is home to the pup when it joins its surrogate (author photographs)

Our guide took us [a small group of 8 visitors] first to the sea otter exhibit at the aquarium. He explained that the three female otters who live there are used as surrogate mothers for rescued sea otter pups, not something I would have known otherwise. He told us lots of information about the ecology of the otter, the success in bringing the sea otter population in the area back from the brink of extinction, and the ongoing research conservation work to protect and enhance this population. We then went behind the publicly accessible areas of the aquarium and up onto the roof, where the rescued sea otter pups are housed. We were allowed into the small office, home to both staff and volunteers involved in the care of the rescued pups. It was exciting to be able to talk to these people firsthand about their sea otter conservation work and to be in spaces where the work was being done. We could see the screens in the office linked to the web cams trained on each of the circular tanks containing a pup and surrogate mother, to allow for constant surveillance. There was also a whiteboard with a long list of jobs for staff and volunteers. The one that caught my eye was 'pup laundry', which I asked about - they get through loads of towels, which are used to dry and 'fluff up' young sea otters before they have a surrogate mother to do it for them. The volunteer on hand was very enthusiastic and encouraging about how we could get involved in volunteering at the aquarium (both in education and conservation programmes) and in helping with the sea otter programme off site too, such as through shore-based monitoring programmes of sea otters. I left with a much greater understanding of all that's involved in sea otter conservation work, and felt that the Aquarium would very much welcome my active involvement in its species conservation and advocacy work. Although there was an additional charge of $15 to take part in this activity, this was extremely good value for money in terms of the nature of the experience.

Excerpt 7.4 Participating in a behind the scenes Sea Otter Tour at Monterey Bay Aquarium

Whilst uncommon across participants, there was also some interest in the zoo acting as a type of 'hub' for visitors to meet and find out how they can get involved in wildlife conservation across the local area:

> *"…if they could have days when they have all the conservationists from around Devon and Cornwall…with all their different projects and they all meet at the zoo and people are allowed to come in and talk to all those people at once, you get an idea of what is available that you can volunteer to do or what you can do help ,you know, if you had a conservation day." Frances, unit 14*

This and the preceding sub-section have identified the value attributable to having face-to-face contact with zoo staff in relation to (i) providing information regarding specific pro-environmental behaviours and (ii) in finding out more about the species conservation work of the zoo and opportunities to actively engage in it. The desire to have such knowledgeable people on hand to talk to during the zoo visit was also evidenced by the numerous questions which participants asked of me in the course of the go-along interviews. These covered a wide range of topics including: animal exhibit design; animal ecology; animal care; captive breeding; and the backstory of individual animals.

Such personalised interactions can enable zoo staff and volunteers to go beyond the fleeting and rather limited information imparted in the zoo's talks programme, and/or build on the information presented in on site information boards/displays. This also provides the opportunity for visitor-staff engagement in issues of wildlife conservation to open up beyond the rather narrow boundaries of consumer-focused, pre-determined pro-environmental behaviours specified in the zoo's conservation advocacy objectives. Particularly for those participants who exhibited a genuine desire to engage with the zoo in its conservation work, this could be understood as a willingness to move beyond the framing of the passive, 'nudged' consumer, and into the realms of active citizenship.

In considering the nature of this face-to-face communication, participants expressed a clear desire to interact with those individuals who were directly involved in the work of the zoo, either as animal keepers or undertaking conservation/research work. This suggested that these individuals were seen to

be trusted sources of information and experts in their field. Whilst participants in unit 15 welcomed the on-site presence of volunteers, they did not place interactions with them in the same category as talking directly with the keepers. As described in my experiences of interacting with volunteers during my research trip to North American wildlife attractions, I found them to have a wide ranging and in-depth knowledge spanning individual animals to overseas conservation projects. However, on reflection, I was conscious of some bias after my encounters with staff and volunteers during my 'sea otter experience' at Monterey Bay Aquarium. Having the opportunity to talk directly with those involved in the husbandry of the sea otter pups added a level of intimacy to the encounter, and also a sense of access to privileged, in the moment information, that might not always be available to volunteers. This may raise issues for the zoo in terms of the possible differential capacities of staff and volunteers to engage and influence visitors. Whilst San Diego Zoo and Monterey Bay Aquarium have extensive training programmes for staff and volunteers to help ensure they can meet the needs of all visitors with whom they engage, the need for interaction with those who visitors deem to be experts is also an important consideration. In addition, as discussed in the previous sub-section, the provision of such a personalised approach to visitor engagement presents a challenge to the zoo in terms of prioritising resources in relation to the delivery of its different aims. It requires staff time for training, event organisation and delivery, and to provide the necessary follow-up with those interested individuals.

This section has explored a number of potential opportunities, alongside the challenges these could present to the zoo, to enhance the on-site experiences of participants to help them take action in support of endangered wildlife. A central thread within this has been the provision and presentation of information in a variety of forms. The variety of mechanisms discussed is suggestive of the need for the zoo to cater for a wide range of preferences in relation to learning modalities. In addition to these on-site experiences, participants also gave consideration in relation to opportunities for the zoo to ensure their continued engagement beyond the boundary of the visit, which is discussed in the following section.

7.3 Opportunities and challenges: visitor engagement beyond the zoo boundary

Whilst participants mainly focused on aspects of their on-site experience at the zoo which they felt would enhance their engagement in pro-environmental behaviours, some also highlighted how a continued engagement with the zoo beyond the boundary of the zoo would also be beneficial. This was primarily in relation to maintaining their engagement with the animals they encountered at the zoo. In addition, some thought was also given to accessing information about pro-environmental behaviours. These are discussed in turn in the following sections.

7.3.1 Engagement with animals encountered at the zoo

Participants from units 1 and 2 had not been to the zoo for a number of years. However, their more recent visit to the zoo had rekindled their concern about endangered wildlife. Reflecting on this, Sara and Steven, unit 1, questioned whether they would feel the same if they had taken part in a post-visit interview a few months, rather than a few weeks, after the zoo visit (this also highlights a limitation of the methodology used in this research project, which will be discussed further in Chapter 8). They felt that the optimal way for them to retain this emotional engagement (i.e. their expressed feelings of concern for endangered wildlife) was through repeat visitation. However, they felt that the cost of coming to the zoo on a more regular basis would be prohibitive for them, as it would for many others:

> *"…if they [the zoo] want people to come back they've got to do something about the cost implications for people who want to keep coming back. They'll get more through-put if they can do something around the prices….if you come back second time it's half price, they need to think about it." Steven, unit 1*

At present the zoo does offer a reduced entry fee for a return visit within six months of the original date of purchase. This 'Welcome Return' ticket could reduce the cost of a visit by a family of two adults and two children by 50%, and is advertised on a large board at several places around the zoo. Evidently

Steven did not see these signs during his visit. However, the ticket has to be bought on the day of the initial zoo visit, when visitors have already paid for that day's visit, potentially making the additional outlay on the day prohibitive (the 2018/2019 admission price for a family of two adults and two children was £60 – Paignton Zoo, 2019). In addition, there will undoubtedly be a focus on that day's visit, rather than future ones, so that consideration might not be given to a future visit at that time.

The potential value of frequent encounters with the animals at the zoo in building empathetic connections with both the zoo animals and their conspecifics in the wild was explored in chapters 5 and 6. In discussing the importance of these frequent encounters in relation to their emotional responses, Amy identified a potential problem for the zoo:

> *"For me I think relationships with the animals grow through frequent visits, because I've been able to do that, so that the emotional connection has grown, but for day visitors, it's obviously a bit more of a challenge, isn't it?" Amy, unit 9*

This again raises an important question in relation to the zoo's behaviour change aims: should it make the same assumptions regarding what can be achieved in relation to behaviour change from those who visit infrequently or perhaps just on one occasion, in comparison with visitors such as Amy, who visit the zoo at least once a month?

In considering ways that they could retain their engagement with the animals beyond the zoo boundary, participants suggested a number of potential avenues, which could present more affordable opportunities, and which would not be reliant on frequent return visits, with the associated financial outlay for the visitor. Laura and Christina, unit 2, asked about the use of web cams at the zoo:

> *"Have they got live cameras at the zoo enclosures, where you could log online and see the animals?" Christina, unit 2*

> *"That would be fantastic, wouldn't it?" Laura, unit 2*

"Cos you could just tap in on the orang-utans and see what they are up to". Christina, unit 2

Although this example would be a virtual animal experience, having already had embodied encounters with the animals at the zoo, the participants from unit 2 felt that this could serve to help retain their emotional engagement with the animals. They also felt it would stimulate their desire to make further visits to the zoo in the future. It is not currently common practice for Paignton Zoo to stream live or recorded footage of animals. However, listening to Amy's description of the influence on her son of watching a YouTube channel provided by an American zoo, attests to the potential of virtual media in supporting people's interest and engagement with animals at the zoo:

"It [virtual media] might be worth looking at in terms of peoples' attitudes to wildlife. They [the zoo] say 'You might not be able to come here, but this is what we do'. We used to look at loads of different videos of different animals [at the zoo], and they had a little video blog as well about animals that had just been born, how they were growing, and how they were doing, and that had an impact on my son and his interest and love for wildlife". Amy, unit 9

Moving beyond the animals at the zoo, a small number of participants would be keen to have virtual access to animals in the wild:

"So you'd have a link to the wild animal from the animal at the zoo". Rebecca, unit 5

Beyond virtual access to images of animals at the zoo or their conspecifics in the wild, participants, both members and non-members, also suggested other avenues of communication from the zoo that they would welcome to enable ongoing engagement with the animals they encountered during their visit(s). These centred on some form of electronic communication from the zoo, which could provide them with updates on the animals they encountered on their visits:

"Even if they could send you something when you've left the zoo. You'd love to get an email from a monkey or something wouldn't you? Naresh, unit 5

At present the zoo does provide this type of communication for people who adopt an animal. Steven's reflection on his daughter's experience with Paignton Zoo when she adopted an elephant is indicative of the value of such personalised communication:

"…when Elizabeth adopted the elephant she got regular updates which kept it live in her mind. We won't get anything from the zoo now because they don't know we were there." Steven, unit 1

The participants' reflections highlight that providing opportunities for ongoing engagement with the animals encountered at the zoo, via a range of visual and textual media, would be both very welcome and valuable in retaining and possibly increasing visitors' feelings towards, and interest in, endangered wildlife and its conservation. They are also indicative of the fact that the zoo cannot necessarily rely on a one-off visit and its associated encounters with a range of animals, to deliver its conservation advocacy objectives. Keeping the embodied experiences at the zoo 'alive' in some way beyond the boundary of the zoo could help to retain engagement with the zoo and its animals. It is also conceivable that such ongoing engagement could also lead to repeat visits, helping to deliver for the zoo advocacy and income generation goals. Providing a range of avenues for post-visit engagement might also provide a route to retain the engagement of visitors such as Heather, unit 13, who in Chapter 6 described how her experiences "…stayed in the zoo." Obviously, this would be reliant on the ability of the zoo to have a means to stay in contact with visitors beyond the zoo boundary.

In considering such opportunities, there is again a challenge with regard to the availability and investment of resources in a range of virtual communication tools. In addition, there is also a challenge in relation to the zoo's current conceptual framing of behaviour change. At present the social marketing

framework dictates an approach to behaviour change focused on the uptake of specific, pre-determined behaviours, with a lack of focus on the emotional component of behaviour change i.e. fostering emotions of empathy, care and concern for endangered species. To consider investing resources in such approaches, an ongoing emotional engagement with the animals at the zoo would need to be something that is recognised as important and valid in terms of the zoo's conservation advocacy objectives.

7.3.2 Information resources for pro-environmental behaviours

In considering their off-site engagement, whilst far less common than ongoing engagement with animals encountered at the zoo, a few participants identified a need for information regarding pro-environmental behaviours. One participant identified the need for resources to be sent out by the zoo. The main focus of these would be to act as a source of information regarding the need for pro-environmental behaviours in relation to endangered wildlife and/or as a prompt to take action. As a zoo member, Amy identified the opportunity for the zoo to communicate this information directly to its members:

> *"…I always read the information that comes through in the membership, and I know pretty much every mum at school has a zoo membership, so that's a lot of people you can give information to. You know we are there for a day out for our children, but I think everyone I know at least wants to spend some time with those animals and learn about those animals. So if that information were to be sent out in the membership, you know maybe an explanation of the palm oil issue, the marine issue, something we can read through, you've then got a jumping board then to be like then 'Oh, we could do this!' "*
> *Amy, unit 9*

Participants such as Amy who visit the zoo with young children, found it hard to find the time to read information and/or listen to talks. However, the provision of information in this format, which could be read at their leisure, might provide an easier, alternative mechanism for conveying information and prompting action. Section 4.5.5.2 of Chapter 4 describes the two online information resources

which the zoo currently uses to communicate with approximately 60,000 people (comprised of members, animal adopters and other zoo supporters). Such existing mechanisms could provide the zoo with an opportunity to reach a large audience, including both regular and infrequent visitors.

Allied to this Amy also discussed the need for information which, whilst it was available on site at the zoo, could be taken home at the end of the visit. This could serve a dual purpose, both to support further learning about animals encountered at the zoo (in line with the activity of 'pursuing an interest in wildlife' described in Chapter 6, section 6.3.1) and to provide details of what actions could be taken to help with their conservation:

> *" I quite like the leaflets that are available at the entrance, um, quite a few are empty I noticed, but usually they are about events, and it's not necessarily just about events…maybe they could have little leaflets, probably ridiculously expensive, but maybe ones about the main animals, and the kids could take them home and put them in a folder or on the wall, so having the picture of an animal that you then have facts and things on it…with facts and figures and things, it could include the what you can do bit as well… so I think things like that to take away would be really valuable, yeah things they can take away."*
> *Amy, unit 9*

In discussing the value of providing information in this way, Amy highlights how the focus of the zoo's take-away resources are currently focused on 'upselling' to visitors, with events encouraging visitors to attend seasonally-based or animal-themed activities. This is again indicative of the challenge and potential tension for the zoo between its entertainment, commercial and conservation advocacy goals.

In considering other ways to find out information after the zoo visit, Karen, unit 4 also mentioned the zoo's website as a potential source of knowledge. She suggested that there could be links on the zoo's website. However, she noted that, although she was a zoo member, she did not tend to visit the website very

often. In the previous section Karen had discussed how she would welcome a more sophisticated version of the zoo's mobile application. In thinking through her suggestion of web-based information, she identified that she would be much more likely to access information via this app. This is again indicative of the need to provide a range of mechanisms for visitors to access information.

7.4 Opportunities and challenges: addressing larger systems and structures beyond the zoo boundary

Chapter 6 described a range of limiting factors which participants felt restricted their ability to undertake pro-environmental behaviours. A number of these were focused at the level of individual action, and opportunities for the zoo to address them have been explored so far in this chapter. Chapter 6 also explored participants' awareness of wider systems and structures which they felt needed to be addressed in order to conserve endangered wildlife and the wider natural world, and which impacted on their sense of personal agency in relation to addressing environmental threats.

As can be seen from the preceding section, in considering how the zoo could help them to take action in support of endangered species, the main focus of participants' responses was in relation to the range of approaches, which they felt could provide opportunities to facilitate individual action. In addition, a small number of participants suggested a role for the zoo in highlighting the links between wider systems and structures in relation to wildlife conservation, which was explored in Chapter 6. Linked to the issue of harsh imagery at the zoo discussed in section 7.2, Frances stressed the importance of understanding the impacts of multi-national industry:

> *"…show us more brutal images of where that [plastic] comes from, what is involved in making that from the petroleum companies…" Frances, unit 14*

Allied to this Naresh, unit 5, felt it was important that his, and other children were "politically aware", when it came to understanding threats to endangered species.

Participants' discussions of how the zoo could seek to engage with or address issues related to wider systems and structures did not extend beyond the two examples given above. It might have been expected that more discussion would have been forthcoming, given how in Chapter 6 participants had identified: (i) their awareness of wider systems and structures negatively impacted on their sense of personal agency, and (ii) their awareness of the significant positive impact that changes in these systems and structures could deliver for wildlife conservation. However, this could be seen as reflective of participants' familiarity with, and expectations of, the need for actions to be focused at the individual level, in line with the prevalent, psychologically-based approach to behaviour change.

Working at the scale beyond the individual zoo visitor presents a significant opportunity for the zoo. Chapter 3 discussed how zoos, including the WWCT, do seek to engage with organisations beyond the boundary of the zoo, to influence both policy and practice. In this regard zoos are not confining themselves to the social marketing model upon which they frame their approach with visitors. Finding mechanisms to showcase these activities to the zoo audience is perhaps a challenge, but if tackled successfully, could help to assuage some of the feelings of helplessness and hopelessness, as visitors become aware of the activities of the zoo in the wider world. The zoo could also use this as an opportunity to encourage and empower its visitors to become more actively involved too, providing a means for them to act beyond the realms of the '3Rs' and the purchase of particular products, to actively challenging supermarkets and other suppliers in relation to their environmental performance and, as appropriate, seeking to engage with issues at a political level.

7.5 Concluding summary

This chapter has identified and discussed a range of opportunities identified by participants, both at the zoo and beyond the zoo boundary, which could help to increase their engagement in wildlife conservation. These opportunities relate both to participants' emotional engagement with animals and pro-environmental behaviours. They also centre on mechanisms to: (i) provide and portray information concerning endangered species and wildlife conservation; (ii)

engage directly with zoo staff; and (iii) continue engagement with animals beyond the zoo visit. In this way these opportunities greatly contribute to addressing, but are not confined to, the limiting factors described in Chapter 6. Allied to these opportunities, a range of challenges has also been identified, which relate to three strategic issues for the zoo in relation to (i) resource generation and investment; (ii) the current framework for delivering behaviour change; and (iii) balancing the delivery of entertainment with conservation advocacy objectives.

On-site at the zoo, participants identified a number of measures which they would welcome as means by which to increase their ability to act in support of endangered wildlife conservation. These measures centred on the provision of particular types of information, and were commonly allied to a consideration of the most appropriate mechanism for its conveyance.

Firstly, a desire for more graphic portrayal of the threats to, and plight of, endangered species was identified as an important avenue for raising awareness and motivating action. Such imagery may also assist visitors in focusing on the wellbeing of animals in the wild, rather than on that of the animals they encounter at the zoo. Such an approach challenges the primary mechanism invoked by the zoo for securing care and concern for endangered species at the zoo, where the expectation is that such emotions are generated through enjoyable and entertaining encounters with ‘ambassador’ animals at the zoo.

This use of graphic imagery is little explored in the zoo environment. One study has indicated the potentiality for zoos as appropriate spaces to depict the negative impacts of human activities on the natural world (Esson and Moss, 2013). However, this type of approach needs careful consideration and further exploration. Drawing on the discussion of the use of the visual in Chapter 4, any imagery used by the zoo can only provide a partial and subjective framing of the wildlife conservation issues which they are seeking to convey to their visitors. Therefore, the zoo would need to think very carefully about the capacities of any images displayed to elicit the types of emotional responses, which it would wish

to secure from such an endeavour. What a zoo professional might deem to be an ‘appropriate’ image in terms of motivating behaviours to help address threats to endangered species, might not correspond to the way it is received or understood by the visiting public. In addition, whilst the use of imagery may provide opportunities for awareness raising and potentially motivate pro-environmental behaviours, it also presents a challenge for the zoo in balancing its entertainment and conservation advocacy objectives. The recent use of harsh imagery to portray the negative impacts of human activities in the BBC documentary ‘Climate Change – The Facts’ (BBC, 2019), and Netflix documentary series ‘Our Planet’ (Our Planet, 2019) may signal an increased appetite within society for the popular media to portray the state of the natural world in more realistic terms. It may also provide an opportunity for the zoo to reconsider its approach to visitor engagement in ways that might not have been possible before.

Secondly, it was common for participants to request more on-site information to instruct them about specific behaviours they could undertake to help support endangered species. The provision of such information will always present a challenge to the zoo and other wildlife attractions, which are conceptualised as ‘free choice learning environments’ i.e. settings where learning is “…largely under the choice and control of the learner ” (Falk et al., 2009 p.5). However, such requests can be understood as a willingness from participants to play an active part in helping care for endangered wildlife. It can also be seen as reflective of the dominance and acceptance of their role as citizen-consumers within the dominant, psychologically-based approach to behaviour change. However, some participants were also keen to have a more pro-active engagement with the zoo and its conservation work. Such face-to-face contact may have more potential to involve visitors in behaviours beyond the narrow confines of the zoo’s pre-determined conservation advocacy objectives. In considering this personal contact, the potential differential capacities of staff and volunteers to engage and influence visitors arose, as the evidence from this chapter suggests that there is a desire for visitors to interact with zoo staff who they deem to be experts in their field.

This personal contact presents a challenge to the zoo, not only in terms of resources to deliver such engagement, but also in relation to its current framework for behaviour change. However, it may have the capacity to encourage and support visitors beyond the realms of the nudged consumer, and instead to re-frame them as active citizens within the wildlife conservation movement. In whatever ways the zoo seeks to engage visitors in pro-environmental behaviours, it faces the ongoing challenge of bridging the geographical remoteness between the lives of zoo visitors and those of endangered species in the wild. Whilst the zoo experience has the capacity to secure emotional proximity with animals in the wild, some participants also valued a better understanding of how their everyday behaviours, enacted far from the countries of origin of endangered species, could make a meaningful contribution to the wellbeing of these species. Whilst the principle of 'Think Global, Act Local', which emanated from Agenda 21, the United Nations plan for sustainable development (United Nations, 2005) is well embedded within the environmental movement, this is an important ongoing issue for the zoo to address.

Thirdly, participants identified a need for access to a variety of on-site mechanisms to address their information requirements. These may relate to participants' preferred learning modalities and/or to the nature and logistics of the zoo visit, where time and/or opportunity to engage with information may be limited. As in the case of graphic imagery, the value of multiple layers of interpretation in enhancing visitor outcomes in relation to conservation advocacy is little studied (Weiler and Smith, 2009). One study is indicative of the potential merit of such a multi-media approach in increasing the ability of the zoo to convey its conservation messages (ibid).

The participants' desire for information at the zoo poses an interesting question in relation to pro-environmental behaviours. The 'information fallacy' (McKenzie-Mhor, 2000), discussed in Chapter 2, which lays bare the limitations of a rational choice, information-based approach to behaviour change, is well documented in behaviour change literature. Whilst the provision of information alone will rarely bring about behaviour change, its provision on site at the zoo,

as part of the wider zoo experience, which can also include an affective dimension through encounters with animals, could play an important part in helping to secure conservation advocacy objectives.

This chapter has also highlighted the importance of attending not only to visitor engagement at the point of the zoo visit, but also beyond the time and space of this visit, if the zoo is to more fully engage its visitors in the delivery of its wildlife conservation mission. The encounters with animals at the zoo can only go so far in relation to influencing visitors' expressed feelings towards, and pro-environmental behaviours in support of endangered wildlife and wider nature, particularly where visits are one-off or infrequent.

Participants identified a need for ongoing contact with the zoo, to help ensure the persistence of the zoo experience over time and space beyond the zoo visit. This was both in relation to the retention and/or enhancement of their emotional engagement with the animals they encountered at the zoo, and/or to encourage and support them to engage in pro-environmental behaviours. Chapter 5 identified the value and importance participants attributed to their firsthand, embodied experiences with animals. However, as a follow-on from these embodied encounters, virtual and paper-based resources were identified as possible mechanisms to help with the persistence of these emotional connections with these animals. In addition, these media were also identified as a means to remind and prompt participants with regard to pro-environmental behaviours.

As discussed in Chapter 3, visitor studies beyond the boundary of the zoo are limited. A small body of literature, primarily from the tourism sector, recognises the need to promote the adoption of pro-environmental behaviours beyond the time and place of a visit to an ecotourism experience/wildlife attraction (Ballantyne and Packer, 2011). These studies concur with the need identified by participants in this research study for information resources to remind and prompt visitors to act. Termed 'post-visit action resources' (ibid) these materials focus, as the name suggests, on reminding and encouraging visitors to undertake specific actions. However, these resources do not focus specifically

on retaining or enhancing the emotional aspects of the zoo visit, which was the more predominant need identified by participants in this study. Again, this is reflective of the predominance of the psychologically-based, social marketing approach, where the emotional dimension of the visitor experience is not attended to in relation to the delivery of pro-environmental behaviours and conservation advocacy objectives. Responding to the need identified in this chapter presents a clear challenge to the zoo's strategic approach to behaviour change. This current strategic approach also presents potential obstacles to the investment of resources into mechanisms to support the persistence of the emotional dimension of the zoo experience, as such an outcome is not currently sought from the conservation advocacy objectives.

Chapter 6 described participants' awareness of, and feelings in relation to, the role of wider systems and structures, beyond the sphere of their individual actions, which negatively impacted on the natural world. In considering how else the zoo could support them in relation to pro-environmental behaviours, very little attention was given to this during the post-visit interviews. Whilst this could be reflective of their interpretation of the interview question, this is also suggestive of participants' expectation and familiarity with the dominant, individually-focussed approach to behaviour change. Chapter 3, coupled with my own experiences as the zoo's Advocacy Officer, have revealed how the zoo community does seek to exert an influence on supply chains and government policy beyond the boundaries of their individual sites. In this regard the zoo's approach to behaviour change can be seen to move beyond the social marketing approach which frames its engagement with visitors. Given the lack of personal agency described by participants in Chapter 6, finding mechanisms to raise awareness of the zoo's activities in the wider world would undoubtedly be welcomed by zoo visitors. Through showcasing such activities, the zoo could help to assuage doubts regarding the efficacy of visitors' individual behaviours. In addition, this presents an opportunity for the zoo to draw attention to its awareness of the need to play a role in addressing environmental issues at the wider scale, beyond the confines of the zoo, and to model how individuals might also seek to challenge the systems and structures which they can feel helpless to address.

Finally, this chapter indicates the value of engaging with zoo visitors in relation to the delivery of the zoo's behaviour change agenda. Smith et al. (2010) identified that decision-making at the zoo in relation to visitor engagement in pro-environmental behaviours is usually undertaken by zoo staff and campaigners, with little recourse to the visitor (which is the case with WWCT). Through in-depth discussion, this chapter has revealed an array of potential opportunities for the zoo to enhance visitor engagement in its conservation advocacy objectives, based on participants' experiences both within and beyond the zoo boundary. This more co-creative approach to visitor engagement presents a challenge to the current approach to behaviour change at the zoo, where the zoo sets a number of pre-determined pro-environmental behaviours which it seeks to secure from its visitors. In addition, issues of resource availability and investment in a more co-creative model, in relation to the needs of other strategic objectives, could also present a challenge. However, such an approach could prove valuable to the zoo in broadening the scope of its conservation advocacy objectives, and in securing larger-scale involvement of its visitors in delivering them.

Chapter 8: Discussion and reflections on research

8.1 Introduction

This research study has brought a new and alternative conceptual framing as a means to explore visitors' experiences at the zoo in relation to the zoo's behaviour change agenda. The value of this conceptual perspective has been demonstrated by the empirical evidence collected through a qualitative methodological approach, which is counter to the predominance of quantitatively-based research within zoo-based visitor studies. Deploying this approach included the use of a mobile methodology, the go-along interview, not previously employed with visitors at the zoo. The resulting empirical evidence, presented and explored in the preceding three chapters, has addressed the study's three research objectives, namely:

Objective 1:

During the zoo visit: To identify and explore the emotional responses of visitors to their encounters with animals at the zoo.

Objective 2:

Beyond the boundary of the zoo visit: To identify and explore the influence of visitors' emotional responses to their encounters with animals at the zoo on their expressed feelings towards, and pro-environmental behaviours, in support of the conservation of endangered wildlife and the wider natural world.

Objective 3:

Beyond the boundary of the zoo visit: To explore ways in which the zoo can increase visitor engagement in pro-environmental behaviours in support of, the conservation of endangered wildlife and the wider natural world.

In addition, this study's conceptual framing has yielded four critical, cross-cutting dimensions which provide new and original evidence of the value of employing an alternative research practice in relation to behaviour change at the zoo, which moves beyond the psychologically-based social marketing

approach currently predominant within the zoo community. These dimensions, which will be described in turn through this chapter centre on:

(i) the importance of the emotional dimension of human-animal encounters at the zoo as a dynamic element in driving potential behaviour change;
(ii) the limitations of social marketing as an approach to engage visitors in wildlife conservation;
(iii) the practices of visitor engagement at the zoo as a mechanism to deliver behaviour change; and
(iv) the tensions in delivering the zoo's behaviour change agenda alongside its other aims.

These findings are central to this thesis' original contribution. In addition, given the wildlife conservation mission of the zoo community, and its relatively recent engagement with the behaviour change agenda, they are also very timely in stimulating debate as to how zoos conceive of, deliver, and evaluate visitor engagement in pro-environmental behaviours. The chapter then concludes with a series of reflections on the methodology of this research study, and a consideration of potential lines of future research enquiry.

8.2 The importance of the emotional dimension of visitors' encounters with animals at the zoo

The methodology employed in this research study has produced new evidence that has enabled the exploration of the relevance and importance of visitors' emotional responses both during the moments of encounter with animals at the zoo, and beyond the zoo boundary, in influencing their potential for pro-environmental behaviour change. These emotional responses are understood to be one of the three dimensions of affect, being both conscious and experienced. Emerging from feelings, and representing personal experience, emotions are expressed feelings, socially constructed through language and other representational practices (Anderson, 2006). Whilst it is recognised that emotions are not able to capture all aspects of the affective dimension, their

exploration within this study provided the most effective and accessible way to address the research aim and objectives.

The empirical evidence presented in this research study serves to challenge some existing zoo-based scholarship within geography and wider human-animal studies, which has focused on a negative critique of the zoo as place of 'spectacle' and a cultural construction of nature which continues to reinforce the mastery and dominance of humans over animals. In addition, this empirical work has provided evidence in support of conceptualisations from geographers regarding the nature and influence on visitors of animal encounters at the zoo. It also extends and develops understanding of the emotional dimensions of the zoo visit, which to date have been primarily explored through psychologically-based research. More broadly it relates to, and adds to scholarship in, psychology and environmental education, which currently dominates the discourse within environmental organisations, regarding the importance of providing embodied, experiential encounters with the natural world.

8.2.1 From spectacle to relational: human-animal encounters at the zoo

Animal geographers have sought to bring the agency of the nonhuman to life through intimate, experiential encounters with a variety of animals in a range of settings (Buller, 2014). To date such scholarship exploring the nature of human encounters with animals at the zoo has been remote, often approached more through theoretical conceptualisation (Anderson, 1995; Davies, 2000) or from the more one-sided angle of engagement with professionals working within zoos either in the UK (Whatmore and Thorne, 2000) or North America (Braverman, 2013). The original ethnographic approach employed in this research study has enabled direct engagement with visitors to the zoo, both during the zoo visit and beyond the boundary of the zoo, across the wider temporality of possible behaviour change. Applying this methodology has provided empirical evidence to further understanding of the nature and influence of encounters with animals at the zoo on visitors' expressed feelings in relation to endangered wildlife and the wider natural world. In so doing this research study has provided empirical evidence which challenges the narratives from cultural geography Anderson (1995) and critics from wider academic spheres,

such as Berger (1980), Mullan and Marvin (1987), and Acampora (1998), whilst providing support for alternative conceptualisations of the zoo and zoo experience provided by Davies (2000), and Braverman (2013) .

A key aspect of the academic and contemporary public and media criticism of zoos is centred on the notion of the zoo as a spectacle for entertainment. Within such critique, the animals at the zoo are characterised as passive objects providing entertainment for the visiting public. However, within this unique space shared between humans and animals, this research study has revealed how moments of interspecies encounter between humans and animals can secure emotional responses from human visitors which go beyond the realms of enjoyment. Such interspecies encounters are more reflective of Collard's (2014) notion of 'lively commodities'. Time spent in the presence of animals on a visit to the zoo has the capacity to secure emotional responses which are indicative of a more relational engagement between humans and animals. In this way moments of encounter with animals at the zoo can be reframed from spectacle to relational.

The potentiality of human-animal encounters at the zoo to be understood in these more relational terms has been explored conceptually within geographical study, through comparison of the display of animals within the traditional zoo and the virtual settings of television, film and photography (Davies, 2000). In Davies' study, the "embodied spaces" of the zoo are postulated to facilitate a richer engagement between visitor and animal (ibid, p261). This research has affirmed this assertion, through revealing the value and importance attributed by participants to the embodied i.e. firsthand experiences with a range of exotic animals. Being in the presence of, and often in close proximity to, these animals, prompts an engagement beyond the visual spectacle, providing a more sensorial experience of the animal, and facilitating a more relational engagement. The value of such experiences was expressed particularly in relation to the limitations which participants identified in relation to their virtual encounters with animals through the media of television and books. In this way, the zoo animal can be understood not as a passive object, but instead as an active agent – the agency of the animal moving across the boundary of its

enclosure, to secure personal, intimate and relational engagements with participants. Davies (ibid) conceives of the impact of the agency of the zoo animal in terms of providing reflexive thought about our relationship with animals. In contrast this research study, centred on the emotional aspect of human-animal encounters, has identified and explored the impact of this agency in relation to individuals' expressed feelings towards animals.

This capacity for relational engagement between visitors and animals at the zoo (and for some the conspecifics of the zoo animal in the wild), also serves to trouble the recurring critique of the zoo as a manifestation and reinforcement of the ontological divide between human/nonhuman animal and culture/nature. Expressed feelings such as concern and empathy do not in themselves fundamentally change this binary division. However, the empirical evidence from this research study provides a valuable insight into the potentiality of human-animal encounters at the zoo, where animals are both captive and confined, to challenge this divide.

The engendering of emotional engagement between visitor and animal is, however, conceived of by Braverman (2013), who draws on Focault's studies of the panopticon and pastoral power in exploring the governance of animals by modern day zoos. In applying these concepts to the zoo, Braverman identifies how the zoo seeks to discipline, and extend and delegate its power of care, so that visitors care about the animals at the zoo, their conspecifics in the wild, and the wider natural world. In this way, the individual animals which visitors encounter at the zoo are the main mechanism by which zoos seek to engage their visitors in issues of wildlife conservation. The zoo utilises these individuals as 'ambassadors', proxies for the conspecifics of their species in the wild, and for the habitats and ecosystems within which these conspecifics reside (Rabb and Saunders, 2005; Braverman, 2013; Skibins, 2014). In addition, zoo-based social marketing campaigns make use of specific 'ambassador' species to lead behaviour change campaigns, where these individuals act as proxies not only for their own species, but for a wider suite of animals and biodiversity, which are negatively impacted by particular human-induced actions.

The capacity of encounters with animals at the zoo to secure emotions of care and concern for the animals at the zoo have been identified by psychologically-based studies of visitor-animal encounters at the zoo (Clayton et al., 2009; Luebke et al., 2014). However, these studies have focused on emotions in relation to the individual animals encountered at the zoo, rather than on a consideration of how these may or may not be transferable to the conspecifics of these animals in the wild. This capacity for geographically remote conspecifics to become emotionally proximate to zoo visitors is clearly vital in terms of the behaviour change agenda, as the zoo is seeking to secure pro-environmental behaviours to help address the plight of endangered conspecifics in the wild.

Given the centrality of engaging visitors in their mission to conserve endangered species in the wild, and thus the importance attached to engendering care for these conspecifics, this research provides an important development in regard to this body of work. However, the extension of expressed emotions of care, concern and empathy beyond the conspecifics of the zoo animal into the wider natural world was less prevalent. This is perhaps an inevitable consequence of the focus at the zoo on 'ambassador' animals, rather than on the habitats and ecosystems within which they reside. Indeed, the need for the zoo to better articulate to its visitors the links between individual species at the zoo and the threats to these habitats and ecosystems was identified in this study.

8.2.2 Complexity in human-animal encounters at the zoo

As described and explored in the previous section, the empirical evidence produced through this research study can be seen to support the concept of relational engagement between visitors, the animals they encountered during the visit to the zoo, and the conspecifics of those animals in the wild. However, it has also served to highlight the differential capacities of, and complexities within, these encounters in eliciting the types of emotional (and behavioural) responses which can be understood to align with the zoo's behaviour change aims and wider conservation mission. This serves to illustrate the complexity and scale of the task which the zoo seeks to address through its visitor

engagement programme. The agency of the ambassador animals at the zoo can only do so much to secure what can be understood as appropriate or desirable emotional responses in relation to behaviour change aims. The factors identified in Chapter 5 of this study, both before and during the moments of encounter with animals at the zoo, highlight the complex nature of visitors' perceptions of, and relationships with, both the zoo and its animal inhabitants.

Returning to Braverman's (2013) conceptualisation of the zoo as a panopticon and deliverer of pastoral care, during moments of encounter, the capacity of the zoo to extend its pastoral care was in some instances spatially restricted to the individual animal at the zoo, and /or particular types of animal. In other cases, a relational engagement was not secured, due to a negative or indifferent emotional response to a particular animal. Within this complex picture, the role of frequency i.e. how often participants experienced firsthand, embodied encounters with animals at the zoo, has emerged as a key factor in facilitating the capacity of these encounters to secure caring and empathetic responses, which extended to the geographically remote conspecifics of the individual animal. Participants who were also zoo members, described how repeated i.e. at least monthly visits to the zoo, served to help develop and strengthen their relational engagement with the individual animals at the zoo, and their conspecifics in the wild. In terms of describing the nature of their relational engagement, unlike non-members, who visited the zoo less often, these frequent visitors were the only ones to express their emotional responses in caring and empathetic terms in regard to the conspecifics of the zoo animal in the wild.

This is suggestive of the capacity of such frequent encounters to secure a deeper level of relational engagement, which may also have an influence in relation to pro-environmental behaviours. In this way, as Buller (2016) asserts, ethical relations between humans and animals can develop over time. Work within psychology has asserted the importance of securing empathetic emotions in enhancing attitudes and behaviours towards animals and the wider natural world (Berenguer, 2007). In considering the influence of their encounters with animals at the zoo on their pro-environmental behaviours, these frequent

visitors were alone in describing activities which transcended the confines of the nudged consumer, through engaging in a range of advocacy activities on behalf of wildlife within their local communities. However, caution must be exercised in consideration of this aspect of frequency. An alternative framing of annual visits to the zoo over a number of years from childhood to adulthood, whilst unusual, was also seen to lead to indifference and boredom in relation to encounters with animals at the zoo.

For other participants, in particular for those who visited infrequently i.e. annually or less, their concerns during the zoo visit were more often focused on the wellbeing of the individual animals that they encountered. Such infrequent encounters provide only a small snapshot of the zoo and its animal inhabitants, and limited time to spend at any one exhibit. Beyond the boundary of the zoo and zoo visit, a number of these participants expressed emotions of concern in relation to the plight of endangered species. In some cases, however, the focus of their concern remained with the animal in the zoo. For other participants, any concerns that did extend to the conspecifics in the wild were boundaried, existing only during the moments of encounter at the zoo, and not persisting beyond the time and place of the zoo visit.

This empirical evidence in relation to frequency is suggestive of a differential capacity between infrequent i.e. annually or less and frequent i.e. at least monthly visitors in facilitating relational engagements, and allied to this, pro-environmental behaviours which can be understood in terms of active citizenship. This raises a broader question for the zoo in relation to what it can hope to achieve in regard to its behaviour change ambitions between these two audiences. At present, the approach to behaviour change and visitor engagement is uniform across all of the zoo's visitors. This is also the case in relation to the behaviour change programmes at other zoos described in Chapter 3. To date there is a lack of research in this arena within the zoo community. However, some research has been undertaken regarding audience segmentation in relation to educational aims. Framing the design of a new exhibit at SeaWorld Parks around different visitor profiles, indicated the value and importance of audience segmentation in helping to design exhibits to

convey conservation messages (Street, 2014). Given the zoo's distinct audiences in terms of its frequent, member visitors, living locally to the zoo, and its infrequent/one-off visitors, who visit annually or less, often as part of a family holiday, it may be valuable for the zoo to explore how, and to what end, it engages with these audiences with regard to behaviour change. The issue of the zoo's practices of visitor engagement are explored in more detail in Section 8.4.

8.2.3 Relational engagement and behaviour change

The capability of the zoo experience to offer the potential for relational engagements between visitor and animal is indicative of the merit and value of applying an emotionally-centred approach to understanding the potential for behaviour change as a result of the zoo visit. At the core of the emotionally-centred 'Values and Frames' (Crompton and Kasser, 2009; Crompton, 2010) approach to behaviour change (discussed in Chapter 3), is a reframing of our relationship with the natural world. Alongside this, Chapter 3 also described research, primarily within psychology and environmental education, which has identified the importance of embodied experiences of nature in helping to secure positive and caring relationships with the natural world, in terms of both attitudes and behaviours.

The forms of natureculture which are advocated as places for embodied encounters with the natural world, within psychology and environmental education centre, on 'green spaces' such as parks, woods and nature reserves. In the case of Crompton and Kasser (2009), more 'wilderness' type experiences are advocated, in areas remote from human population, to enable experiential engagement with animals and nature, with an emphasis on solo experience out in the natural world. Such a discourse is also reflected in the work of some of the large environmental organisations in the UK, including The Wildlife Trusts and the RSPB.

The natureculture provided by the zoo is conspicuous by its absence in such considerations of experiences of the natural world – only one passing reference has been unearthed in research by Otto and Pensini (2017). In relation to

desired outcomes of securing positive and relational engagements with the natural world, this study, by bringing a new conceptual framing, has provided new ways of understanding human-animal interactions at the zoo. In so doing it has provided new evidence, extending and developing that from zoo-based psychology studies, to identify that whilst the zoo may sit in a rather different place within the natureculture spectrum, it can also have the capacity to build relational engagements between humans and nature, in particular with endangered wildlife. For many city dwellers, where a visit to the zoo may be their “best nature experience” (Falk et al., 2007), the zoo clearly has a role to play within this mosaic of naturecultures. In particular its capacity to secure relational engagements, and thus an emotional proximity, with geographically remote animals through encounters at the zoo is arguably unique in comparison with the work of other environmental organisations.

8.3 Evidence of social marketing as a limiting framework for engaging zoo visitors in pro-environmental behaviours

The starting point for this research study was the desire of the WWCT to explore an alternative means of framing its approach to securing pro-environmental behaviours from its visitors, as part of its conservation advocacy objective and wider wildlife conservation mission. This was in response to the dominance of social marketing within the zoo community as ‘the’ framing device to deliver behaviour change. Whilst evaluation of specific social marketing campaigns within American and Australasian zoos has been undertaken (Kemmerly and Macfarlane, 2009; Lowry and Gray, 2009; Pearson et al., 2014; MacDonald, 2015), this has focused on the efficacy of these campaigns in delivering the desired, pre-determined behaviours. Therefore, these evaluations have not sought to critique the use of social marketing per se or to consider how other approaches might help to support the zoo community in the delivery of its undoubtedly challenging behaviour change agenda. In contrast, and uniquely within zoo-based visitor research, this research study has taken this step, by opening up consideration of the behaviour change agenda at the zoo beyond the social marketing framework. In so doing it has provided empirical evidence of the limitations of social marketing as an approach for engaging zoo visitors in pro-environmental behaviours.

Whilst the limitations of social marketing have been identified and well described by geographers and other social scientists (Shove, 2010; Shove et al., 2012; Crompton and Kasser, 2009; Barr, 2014) this research study provides new empirical evidence within zoo-based visitor research of these limitations within the context of the zoo. These limitations can be understood in relation to two main aspects (i) the epistemology of behaviour change at the zoo; and (ii) the scale of focus for behaviour change. These are considered in turn in the following two sections.

8.3.1 The epistemology of behaviour change at the zoo

As is to be expected from a social marketing approach, the current objectives of the WWCT's advocacy programme (WWCT, 2015) centre on securing a set of specific, pre-determined behaviours from visitors to the zoo, who the zoo conceives of as citizen-consumers (Clarke et al., 2007). This epistemology of behaviour change is closely aligned with that embedded within UK environmental policy (DEFRA 2008; DEFRA 2011). Removing the social marketing frame as a lens through which to explore the influence of encounters with animals at the zoo on visitors' emotions and behaviours in regard to endangered wildlife and the wider natural world, has challenged the existing epistemology of behaviour change at the zoo. It has enabled a richer understanding of the influence of the zoo experience on visitors' actions, and has revealed a range of behaviours which, from a geographical and wider social science perspective, can be understood as relevant and important in relation to the zoo's behaviour change agenda.

The wider conceptualisation of pro-environmental behaviours employed in this research study has revealed how the zoo experience can influence behaviours which can be understood as transcending the zoo's characterisation of the visitor as a citizen-consumer. This was most apparent for participants who, driven by their relational engagement with animals encountered at the zoo, sought to raise awareness of, and co-opt actions in support of endangered species conservation in their local communities. Although one must be careful not to unequivocally and uncritically attribute these actions directly and uniquely

to the influence of the zoo visit, this reveals the potentiality of the zoo experience to engender actions which can be understood in terms of active citizenship, as described by Crompton and Kasser (2009), where individuals undertake pro-environmental choices in their lives without recourse to repeated nudging, and press for changes in policy and practice in business and government. Indeed, this pathway to active citizenship through a relational engagement with the natural world, aligns well with the framework for behaviour change advocated by Crompton and Kasser (2009), and Crompton (2010), and (as in Section 8.2) asserts the importance of the emotional dimension of the zoo experience in relation to behaviour change. A small number of zoo visitor studies in the USA have explored the influence of the zoo experience in relation to visitor advocacy within their local communities (De Young et al., 2011; Dierking et al., 2004). However, unlike this research, these studies did not explore the pathway i.e. the way in which the zoo experience influenced visitors to become advocates in their local community, and did not seek to understand such activities with reference to social marketing or wider behaviour change literature.

Alongside this local activism, many participants described how their visits to the zoo led them, in various ways, to pursue an interest in wildlife. The capacity of the zoo experience to help cultivate an interest in wildlife, be it existing, or latent (as was the case for a number of participants who had not visited for many years), can be understood as a means to further visitors' engagement and understanding of wildlife and the wider natural world, both affectively and cognitively. In this way it can provide a means to support the development of an individual's relationship with animals and the wider natural world. The current framing and epistemology of behaviour change at the zoo does not recognise the relevance of such behaviours. However, by moving beyond this framing, and exploring an emotionally-centred approach to behaviour change, this research study has revealed and explored the value of these behaviours in cultivating a more relational engagement between humans and animals.

The reliance on the social marketing framework also revealed how it can limit visitor understanding of the types of behaviours which they can undertake in

response to their concerns about the plight of endangered wildlife. Undertaking certain behaviours, notably household practices related to resource consumption, were seen to be sufficient by some participants in terms of positively responding to the zoo's wildlife conservation mission. This is perhaps unsurprising, given the current conservation advocacy goals of the WWCT. In addition, such a perspective is reflective of the dominance of the psychologically-based approach to behaviour change within UK government, and thus the understanding within the general public as to what is required of them in relation to their contribution to addressing the multiple environmental challenges facing the planet. It also has the potential to lead to complacency amongst zoo visitors who think that such behaviours suffice, and that they are 'doing their bit' in relation to endangered species conservation. In this way, rather than providing a place which challenges visitors to move beyond their current household practices, the behaviour change aims of the zoo affirmed the validity of these practices as a means by which visitors could contribute to wildlife conservation. For those who recognised that such practices were not sufficient, the zoo was not utilising their desire to do more. In such cases this represented a wasted opportunity for the zoo to capitalise on the influence of the zoo experience on these visitors, by highlighting (and ideally supporting) other ways that they could act, for example in line with the local advocacy work, described by some participants, or by volunteering at the zoo.

These insights highlight the limitations and potential pitfall of framing the zoo's conservation advocacy work within the dominant paradigm of the citizen consumer. The empirical evidence gathered in this research study has also exposed the limitation of the social marketing framework in relation to its focus on the individual, and the associated importance of considering social theory in the context of the zoo's behaviour change agenda, which is discussed in the following section.

8.3.2 Focus on the individual as the agent of behaviour change

As outlined in Chapter 2, the social marketing approach relies on the individual citizen-consumer as the key agent of social change. This chapter also highlighted how critique from social theory (Shove 2010; Shove et al., 2012;

Huddart Kennedy et al., 2015) has sought to shift the focus of attention from the individual to wider systems and structures within which individual actions are "locked-in" (Jackson, 2005). Within the current psychologically-based approach to behaviour change, these remain unquestioned and untouched.

Through this research study, participants have provided an insightful critique of the limitations of this individually-focused approach. In expressing their lack of personal agency in relation to the challenges faced by endangered wildlife and the wider natural world, they have engaged with or articulated wider concerns, which identify the roles of wider political and economic systems and infrastructures as central to addressing environmental challenges.

Whilst this research study was not undertaken through the lens of social practice theory, by challenging the particular framework of social marketing as a means to explore behaviour change, it has revealed the relevance and importance of social practice theory in relation to the behaviour change agenda at the zoo. At present within zoo-based research studies, a feeling of a lack of personal agency described by participants is not questioned beyond the realm of the individual. It is simply understood in terms of 'barriers' to individual action which, once addressed will enable the necessary behaviour to be undertaken (Luebke et al., 2014; Ballantyne and Packer, 2011). In contrast, this study enabled a broader interpretation of personal agency, and understanding of what might limit individual action, or indeed why individual action is limited in its ability to secure desired objectives with regard to wildlife conservation. In this way it poses an important challenge for the zoo in terms of how it can best deliver its conservation mission, understanding that reliance upon individual visitor actions and the more traditional mechanisms of social marketing can only achieve so much.

Within the environmental movement, challenging questions continue to be raised about the structures and systems within which we carry out our everyday lives. A "…dramatic move beyond business as usual…" is highlighted by WWF in their latest 'Living Planet Report' as the only way to halt the decline of the earth's ecosystems (Grooten and Almond, 2018 p.8). Within geographical

enquiry, Barr (2014) identifies the need for more questioning from environmental social scientists about “What it means to lead the good life?” (p.231), with a focus not on how individuals and communities can seek to reduce their environmental impacts, but instead on why we live and consume in the ways that we do. This very question was raised by participants in this research study, and is indicative of the need to pay more attention to the social, as well as the individual within society, within the context of the zoo’s conservation mission. Revisiting Braverman’s conceptualisation of the zoo as one which seeks to extend its power of care to the visitor, this study suggests that the zoo should also attend to extending this role into wider society.

At present, little empirical research has questioned the value of focusing on the individual zoo visitor in relation to wildlife conservation, and the need for this approach to be supplemented by “…interventions that target the structural threats to global biodiversity.” (Moss et al., 2017 p.7). Chapter 2 highlighted that within the zoo community there are some efforts, although little researched, to look beyond the boundary of the zoo and the individual zoo visitor as the target for its conservation advocacy work. This type of wider advocacy and campaigning is to be welcomed. However, there is a tendency for these to be focused on single-issue campaigns in relation to particular products, for example Palm Oil (Chester Zoo, 2019; Don’t Palm Us Off, 2014) and single-use plastic water bottles (ZSL, 2019), where a key action for the visitor can be centred on signing a petition, which can also be viewed another form of ‘nudge’. Such campaigns do not address some of the more fundamental challenges discussed by participants in this research, and those exposed by theoretically informed social research in relation to the over-arching neo-liberal approach to governance with its associated economic model predicated on continued growth and expansion.

8.3.3 Beyond the current epistemology of behaviour change at the zoo

The geographical lens employed in this study has identified how the social marketing approach can limit understanding of the potential of the zoo experience to influence pro-environmental behaviours. Such limitations would no doubt be a concern for the zoo and wider zoo community, in their efforts to

deliver their wildlife conservation mission, and in demonstrating the relevance and importance of the zoo to wider society in the 21st century. A richer understanding of its potential contribution to wildlife conservation would undoubtedly be welcomed. In particular the capacity of the zoo to secure behaviours which move beyond the boundaries of the dominant, psychologically-based social marketing paradigm, which, in the light of current academic and practitioner-based experience, is widely recognised to be failing to deliver the scale or nature of behaviour change required (Huddart Kennedy et al., 2015; Grooten and Almond, 2018).

It also raises the question of what the future epistemology of behaviour change at the zoo will look like. Does it primarily seek to reinforce the existing psychologically-based behaviour change paradigm, with its prescription of specific behaviours? Or does it seek to challenge this approach, challenging and engaging visitors, and the wider community in a more progressive agenda? Academic critique of social marketing, coupled with the ongoing production of expert reports highlighting the continued decline of biodiversity (Grooten and Almond, 2018; Hayhow et al., 2016), and impacts of climate change (IPCC, 2018) provide a strong signal to the zoo (and other environmental organisations) for the need for them to embrace a more forward-looking approach, working both at the individual and wider societal level. The current work of WWF as part of its partnership in delivering the 'Our Planet' series on Netflix, provides an insight into a more progressive agenda, framing individual pro-environmental behaviours more in terms of active citizenship, including: local activism; volunteering; and fundraising (Our Planet, 2019).

8.4 The practices of visitor engagement at the zoo

The norm within zoo visitor research practice centres on understanding how visitors respond to aspects of their experience at the zoo. What remains uncommon is for the zoo community to seek the visitor perspective regarding the mechanisms employed at the zoo to actively engage them in wildlife conservation. The methodology employed in this study enabled such discussion, revealing the importance for the zoo of attending to the ways in which it engages with visitors, both at the zoo and beyond the boundary of the

zoo. What has emerged is a desire for a different type of engagement between the zoo and its visitors, both at and beyond the boundary of the zoo, and a willingness from visitors to play a co-creative role in working with the zoo to help secure its conservation advocacy objectives. These two elements will be considered in turn in the following sections.

8.4.1 A different type of engagement

8.4.1.1 During the zoo visit: engaging visitors with the plight of endangered species

Rabb (2005) and Braverman's (2013) conceptualisation of the zoo centres on the zoo identifying and securing caring relationships between the zoo visitor, animals at the zoo, and the conspecifics of those animals in the wild. As highlighted in section 8.2, this research study has provided more evidence of the capacity of the zoo experience to elicit emotions of empathy and concern for animals at the zoo, and new insight into how these emotions may extend to geographically remote conspecifics in the wild. In addition, it has revealed two challenges to current understanding of the way in which the zoo seeks to engage its visitors in endangered species conservation: (i) the primary mechanism used by the zoo is not the only pathway to securing care and concern for endangered wildlife and, allied to this, (ii) emotional responses other than empathy, concern and care can be important and valuable in motivating concern and action in relation to endangered wildlife.

Participants expressed a desire for an additional (or alternative) pathway to raise awareness and motivate conservation-related activities, through a more graphic portrayal of the threats to, and plight of, endangered species in the wild. This was driven by a desire to fully appreciate the threats faced by endangered animals in geographically remote areas, coupled with concerns that seeing animals at the zoo could lead to complacency, as these particular individuals are clearly safe from such dangers. It was not clear as to the nature of the emotions that participants felt would be elicited by such imagery. However, emotions of anger and disgust had been described both during and after the zoo visit in relation to the impact of human-induced threats to endangered

wildlife, elicited for some as a direct result of watching distressing images of wildlife poaching and hunting on social media.

As identified in Section 8.2.2, empathetic emotions are understood as important in enhancing attitudes and behaviours towards animals and the wider natural world (Berenguer, 2007). However, Kasperbauer (2015) has argued that rather than empathy, other emotions, in particular anger, are more strongly involved in securing moral concern for animals. The use of harsh imagery at the zoo may elicit emotions such as anger amongst some visitors, and may also serve to re-focus or at least balance visitor concerns regarding the well-being of the animals at the zoo, to consider the plight of their conspecifics in the wild.

To date this is an area little explored by the zoo, which is indicative of the dominance of the ambassador animal approach, and the culturally embedded expectations of the zoo as a 'fun day out', with children as a major proportion of visitor numbers. It may also, as Kasperbauer (ibid) wishes to challenge, be reflective of the "privileged place" (p.817) of empathy in relation to moral concern for animals. Within the zoo community, there is suggestion of the need for zoos to be innovative in relation to visitor engagement. Research into the tolerance of visitors to Chester Zoo to an exhibition which depicted issues including climate change, pollution and threats to wildlife through large photographic images, led the authors to conclude that there was a need to move away from "…the safe, animal-centric education that visitors are expecting, to a more personally (for the visitor) challenging agenda." (Esson and Moss, 2013 p.93). In relation to their exploration of the zoo, Davies (2000), draws on Giddens (1984), who conceives of place as a setting for seeing the consequences of an individual's actions, and for reflexive thought. The use of distressing imagery would certainly bring to the fore the impact of human actions on endangered wildlife and wider nature, and would no doubt elicit both emotional and cognitive responses from visitors. However, whilst it can provide opportunities for awareness raising and potentially motivate pro-environmental behaviours, it also, as identified by participants, presents a challenge for the zoo in balancing its entertainment and conservation advocacy objectives.

More broadly, the type of imagery used to engage the general public in issues of nature conservation is an enduring theme within the environmental movement. For decades there has been a strong reliance on the use of facts and images which highlight and portray the extensive, negative impacts of human activity on the natural world. This ‘gloom and doom’ approach (Owen, 2013) to securing public engagement in environmental issues has met with limited success (ibid). In recent years there has been an increased emphasis within the environmental movement on the use of positive imagery of the Earth’s biodiversity, with an emphasis on eliciting love and care for nature. Within this framework, there has been little imagery to confront the viewer with impacts of human actions on the natural world: references tend to be oblique, as exemplified by the image of the polar bear trying to traverse floating pieces of ice, as a metaphor for climate change (WWF, 2018).

More recently, the use of harsh imagery to portray the negative impacts of human activities has started to resurface. The Netflix documentary series ‘Our Planet’ combines the spectacular imagery of a conventional wildlife programme with hard-hitting imagery and facts regarding the “sombre truths” of the role of human activities in the plight of the Earth’s biodiversity and ecosystems (Our Planet, 2019). Alongside this a recent documentary from the BBC, ‘Climate Change – The Facts’ (BBC, 2019), signals a move away from the corporation’s traditional approach to documentaries about the natural world, which have been criticised for “…only showing a rose-tinted view of the natural world” (The Guardian, 2019). In combining scientific research with graphic, and at some points heart-wrenching imagery, this also sends a very clear and strong message regarding the need for immediate action, from the individual to the societal level. This reappearance of the genre of harsh imagery may signal an increased appetite within society for the popular media to portray the state of the natural world in more realistic terms. It may also provide an opportunity for the zoo to reconsider its approach to visitor engagement in ways that might not have been possible before.

8.4.1.2 Personalised engagement with zoo staff and volunteers

At present the zoo relies heavily on textual information, at the animal exhibits and at other points around the zoo, as the means to convey information to its visitors regarding aspects of animal ecology, the level and nature of threats in the wild, conservation breeding programmes, and research. Such an approach is common across zoos in the UK, and is perhaps reflective of the history of zoos as a collection of animals, labelled and displayed for public view as a 'living museum' (Keulartz, 2015). In relation to the zoo's conservation advocacy objectives, it is also suggestive of a limited understanding of behaviour change theory and practice, relying on an information-based approach to secure action from visitors, which, as discussed in Chapter 2, is now understood to be insufficient in motivating action.

Whilst participants would welcome more, easily accessible information on site, supplemented with a wider range of interpretive resources, there was also a desire for this to be complemented by more face-to-face engagement with zoo staff and/or volunteers. At present such engagement occurs primarily through the zoo's talks programme, with some staff and volunteers present on site at some exhibits for certain periods of time. However, for much of a visit to the zoo, at any time of year, there is little visibility of zoo staff or volunteers for visitors to engage with. This lack of personal engagement with visitors may to some extent be reflective of the reliance on the 'ambassador' animal as the means to secure public interest and involvement in wildlife conservation. However, as already highlighted, the agency of these animals can only do so much.

Within zoo-based visitor studies, there has been little research to date on the role of zoo staff or volunteers in mediating the visitor experience, in comparison with studies exploring the influence of particular species of animals, their behaviours and exhibit infrastructure on visitor engagement. However, where research has been undertaken in this arena, studies by Mony et al. (2008), Anderson et al. (2003), and Wolf and Tymitz (1981) have indicated the greater value placed by visitors on human interaction compared with other commonly used communication approaches at the zoo. These studies also found that the

mediating presence of zoo staff/volunteers enhanced the uptake of conservation and/or educational messages within visitor cohorts. The presence of the extensive and highly trained docent teams that I witnessed at both San Diego Zoo and Monterey Bay Aquarium attest to this, and are indicative of the value placed by American zoos on this type of engagement. Whilst not yet the subject of published research, having trialled such an approach in recent years, Chester Zoo now operates a 'hybrid' scheme, with some public talks, complemented by many one-to-one engagements with visitors (A Moss 2019, personal communication, 18th March).

The role of such engagement with visitors is not without negative critique. Whilst also acknowledging that this area is little studied, Beardsworth and Bryman (2001) provide a more critical and somewhat scathing picture of the role of zoo staff in visitor interactions. Framed within the concept of the increased 'Disneyization' of the modern zoo (adopting the principles of a Disney theme park as it becomes more commercialised), they identify that the key role for zoo staff in visitor engagement is through emotional labour i.e. "…expressing socially desired emotions in the course of service transactions" (p.96). These are primarily geared around visitors having a 'fun day out', although it is also acknowledged that this mechanism could be used to "…induce a sense of guilt (in relation to environmental degradation, species extinction etc.)"(ibid, p.97). Such critique is indicative of the need for the zoo to pay attention to the nature and purpose of staff/volunteer interactions with visitors, to help ensure that it can help to actively engage visitors in wildlife conservation.

The evidence presented in this research study provides further evidence of the value and importance of more personalised experiences at the zoo, facilitated by zoo staff and volunteers. Just as this research study has identified the capacity and importance for a relational engagement between humans and animals at the zoo in regard to the delivery of conservation advocacy objectives, in a similar vein it has also revealed the value of a more relational engagement between zoo staff/volunteers and the visiting public. This would provide many more opportunities for visitors to ask questions regarding any aspect of their zoo visit. It would also help to reduce the reliance on the animals at the zoo to

secure the desired responses from visitors. Zoo staff and/or volunteers would be well placed to provide a counter-narrative to the one witnessed repeatedly at the zoo in relation to the wellbeing of the animals in the exhibits. This could be helpful in assuaging visitor concerns, and potentially to re-focus their emotions towards the wellbeing of the conspecifics of the zoo animals in the wild. It could also enable the zoo to have more time to actively engage visitors in discussions regarding its conservation work and ways in which visitors could carry out actions to contribute towards it. This would have the capacity to open up discussions regarding pro-environmental behaviours beyond the generic messages available through the zoo's talks programme and information boards.

8.4.1.3 Engaging with visitors beyond the zoo boundary

The geographical perspective brought by this research study has built on existing studies, primarily within the tourism sector, to extend understanding of the importance of engagement with zoo visitors over time and space beyond the boundary of the zoo and the time of the zoo visit. Currently at the zoo, there is considerable reliance on visitors' experiences during the visit as the primary route to influencing pro-environmental attitudes and behaviours. This study has revealed the ways in which these experiences can influence visitors expressed feelings towards, and actions in support of endangered wildlife. Alongside this it has also revealed three aspects of particular importance when considering visitor engagement beyond the boundary of the zoo:

(i) the role of frequent (at least monthly) visits in securing affectionate, empathetic engagement with endangered wildlife;

(ii) the limited influence of the zoo experience for some beyond the boundary of the zoo; and

(iii) how the nature of the zoo visit, especially with children and young people, can limit the extent of engagement with the zoo's conservation advocacy messages (and other information) whilst at the zoo.

Such factors are indicative of the need for the zoo to continue to engage with its visitor cohorts beyond the boundary of the zoo, if it is to maximise and build on the influence of the zoo experience.

In attending to this engagement, the zoo must not rely solely on the type of 'Post Visit Action Resources' currently advocated in zoo-based and wider visitor-studies research based in tourism (Packer and Ballantyne, 2010; Ballantyne and Packer, 2011; Hughes et al., 2011; Bueddefeld and Van Winkle, 2017). As is consistent with a social marketing approach, these centre on the provision of information resources to remind and prompt visitors to undertake specific pro-environmental behaviours (McKenzie-Mohr, 2011). Within such a framing, attention is not paid to the emotional dimension of the zoo experience, the importance of which has been identified in this research. However, if the zoo wishes to maximise its capacity to foster emotions of empathy, care and concern for geographically remote endangered species, an important component is ensuring that this emotional proximity persists, and ideally is further enhanced, remote from the site of embodied encounters at the zoo.

The importance of embodied experience in comparison with virtual encounters via television and other media has been identified in this study. However, following on from embodied encounters at the zoo, virtual encounters with the same animals via live streaming or recorded footage would be welcome, serving to remind and/or reinforce expressed feelings towards these endangered species and their conspecifics in the wild. Such a mechanism for engagement could prove particularly helpful for visitors who come to the zoo infrequently (one or more years between visits) and are not therefore able to experience the frequency of encounters with animals at the zoo afforded to those who come regularly (at least once a month). This virtual engagement could help to act as a proxy for frequent visits, which have been identified as key to securing empathetic engagement with animals at the zoo and their conspecifics in the wild. Such mechanisms could also prove helpful in engaging with visitors whose experiences at the zoo tend to 'stay in the zoo'.

The value of such virtual engagement has yet to be explored by the zoo community. At present the zoo is seeking to extend its engagement with its visitors beyond the boundary of the zoo through more text-based information, via its website. In recent months it has also installed web-cams at two exhibits (meerkats and black crested macaques) so live footage of these animals can be

viewed via the website. However, the webcams are not promoted on site, and at present unless visitors are zoo members, there is no capacity for more personalised, pro-active engagement with visitors beyond the boundary of the zoo. Such a situation appears largely at odds with the types of engagement sought by the participants in this study.

8.4.2 Co-creation

The empirical evidence within this thesis is testament to the value of actively engaging with visitors to the zoo in regard to the delivery of the zoo's behaviour change agenda. Participants willingly, and often with great enthusiasm, provided an insightful commentary and reflection of how their experiences at the zoo influenced their expressed feelings towards, and pro-environmental behaviours in support of endangered wildlife and the wider natural world. However, such pro-active engagement of this community of interest is not visible within the zoo community. Reflecting the wider approach to behaviour change adopted by UK government, the zoo can be seen to position itself as the 'expert', with a paternalistic, didactic approach to visitor engagement, which inevitably only allows space for passive visitor engagement, as these individuals are instructed to adopt prescribed pro-environmental behaviours.

Barr and Woodley (2019) highlight the problem stemming from this binary of "expert versus individual" (p.117) in relation to community engagement in issues of environmental hazards, as it does not allow space for a particular community of interest to question or consider other ways of acting in response to an environmental challenge. Adopting an approach which enabled active engagement of a community of interest, facilitated the co-development of knowledge and practical action, which was both more consensual and empowering (ibid). Applying this type of co-creative approach to engagement within the zoo community could enable the large and diverse cohort of zoo visitors to contribute in such a way. Given the persistence and scale of the challenges facing the endangered wildlife that the zoo community seeks to conserve, and the value of visitor insights captured and explored in this research study, it would seem wise for the zoo to consider the value of this type of engagement.

8.5 Tensions in delivering the zoo's behaviour change agenda alongside its other aims

Today zoos position themselves as centres for conservation, having undertaken a paradigm shift from their previous incarnations first as menageries and then living museums, where the zoo experience was centred on the provision of a spectacle for entertainment. As centres for conservation, zoos seek to deliver aims of: education (including advocacy); conservation; and research, in addition to this long-standing function of entertainment. In terms of overall governance, the zoo relies heavily on income generation from the visiting public to fulfil these aims.

The tensions for the zoo in balancing the delivery of these aims have been documented by animal geographers (Philo and Wilbert, 2000; Lorimer, 2015), who have also highlighted the crucial role of paying visitors in securing the financial success and ongoing existence of zoos (Whatmore and Thorne, 2000; Lorimer, 2015). This current research study builds on this work, as it has facilitated a more detailed exploration of these tensions in relation to the delivery of the zoo's behaviour change agenda, which has not yet been a focus for research within the zoo community.

The tensions revealed in this study centre on the delivery of the zoo's behaviour change agenda in relation to two aspects (i) income generation from visitors; and (ii) pre-conceptions of the role of the zoo, which are discussed in turn in the following sections.

8.5.1 Income generation

Experiences described by participants at the zoo, alongside my own observations of zoo practices on site, reflect the importance of income generation at the zoo. Whilst income generation from visitors has always been central to the continued existence of the zoo, in more recent times it can also be seen to be reflective of the increasing neo-liberalism of wildlife conservation in general (Lorimer, 2015), discussed in Chapter 2, where the general public are

co-opted by a range of environmental organisations to provide a source of income generation for conservation work, through the commodification of the natural world. This framing of environmentalism is strongly reflected in the prominence and prevalence of materials on site at the zoo, which aim to secure additional financial contributions from visitors through a range of mechanisms. The evidence of the impact of this framing was apparent in participants' responses: the provision of financial contributions to the zoo was the most commonly described pro-environmental behaviour amongst participants, and was also understood by some as the main way in which they could help support endangered species conservation.

This commodification of conservation has been criticised as running counter to a more emotionally-centred approach to securing behaviour change in support of the natural world, and has been described as a "transactional frame" in the Common Cause for Nature report (Blackmore et al., 2013). Building on the emotionally-centred approach to behaviour change developed by Crompton and Kasser (2009) and Crompton (2010) and discussed in Chapter 2, this report describes how this transactional framing presents conservation organisations as businesses, which sell a product i.e. nature conservation to a customer i.e. citizen-consumer. Such a framing is argued to be at odds with the need to foster attitudes of environmental concern and to motivate action, and does not help to build understanding of other ways in which visitors can make a positive contribution to wildlife conservation. In addition, the approach at the zoo can also be understood in terms of what Blackmore et al. (2013) refer to as "superhero frames", where the conservation organisation presents itself as the one who will be responsible for addressing environmental problems, whilst the general public has only a passive role as a contributor of funds.

The focus on financial contributions can be seen to align with the zoo's current framing of its visitors as citizen-consumers, instructed to enact specific behaviours as a means to support endangered species conservation. Allied to this, the pre-eminence of 'upselling' at the zoo can also be understood to work counter to a more emotionally-centred approach to behaviour change proposed within this current research study, and the capacities revealed in this study for

zoo visitors to transcend the narrow confines of the citizen-consumer. In this way there may be a tension between the need to generate income and the challenge of engaging in a more progressive approach to behaviour change, beyond the confines of social marketing.

8.5.2 Perceptions of the role of the zoo

In the course of this research study it became clear that participants did not possess a unified, or necessarily very clear sense of the roles of the zoo. Reflecting previous research (Clayton et al., 2009; Fraser and Sickler, 2008; Fraser, 2009), the zoo was most commonly identified as a site of entertainment and education. Whilst some participants showed more awareness than others in relation to the zoo's other aims in relation to conservation and research, the full breadth of the zoo's work was not well understood. In addition, although it was common for participants to have a general sense of the educational value of the zoo, there was little awareness of behaviour change as a facet of this area of work. Such pre-conceptions, more commonly termed 'motivations' within existing zoo-based visitor research, have previously been found to influence cognitive learning outcomes for visitors (Falk et al., 2007). This study has revealed how these pre-conceptions are also important in relation to the zoo's behaviour change agenda, particularly in relation to the nature of visitors' emotional responses to animals encountered at the zoo.

Participants, particularly those with young children, who understood and valued the zoo as a place of education, were very pro-active in facilitating their children's engagement and appreciation of the animals they encountered. Encouraging and supporting encounters with animals in this way can, within the framework of this research, be understood as facilitating a pathway to a more relational engagement with animals at the zoo from a young age.

An understanding of the conservation role of the zoo, in particular with regard to the breeding of endangered species, helped to ameliorate concerns regarding the wellbeing of the animals encountered at the zoo. In contrast, for those who did not have this knowledge and awareness, their emotions were not mitigated in this way, and often led to a questioning of the validity of the role of the zoo.

Clearly this is counter to what the zoo is hoping to achieve in relation to its visitor engagement and behaviour change agenda.

In considering the way in which the zoo portrays itself to its visitors, it is arguably complicit in its failure to raise awareness of the full breadth of its work. This research study did not focus on how the zoo communicates with its visitors and the wider world. However, it was clear from the go-along interviews, that visitors had many questions regarding all aspects of the work of the zoo, which, due to a lack of easily accessible information on site, they directed towards me, as a proxy for a member of zoo staff. In terms of engaging with audiences beyond the boundary of the zoo, a recent study of members of the British and Irish Association of Zoos and Aquariums (of which the WWCT is one), explored how these zoos portray themselves via social media (Rose et al., 2018). Through an examination of Facebook posts, Rose et al. identified that the majority of posts related to marketing or advertisements, with the fewest number concerning the conservation and research work of the zoo (ibid). Of particular note is that there was no mention of any Facebook post in respect of conservation advocacy or specific behaviour change programmes (ibid). This provides an interesting insight into the focus of zoos' communications. These findings are reflective of the tension between encouraging visitors to the zoo to generate income, and promoting understanding and awareness of the wider work of the zoo, to the general public.

8.6 Reflections on research

8.6.1 The value of alternative research practice to the zoo community

This research study has brought a new and alternative conceptual framing to the exploration of the behaviour change agenda in the context of wildlife attractions, specifically the zoo. By undertaking the research through a geographical lens, it has enabled a fresh exploration of the way in which experiences at the zoo can help actively engage visitors in wildlife conservation. Coupled with this novel academic perspective, the study was undertaken using a qualitative approach, counter to the predominance of quantitatively-based studies within zoo-based visitor research practice. Specifically, the use of the go-along interview is unique amongst current practice at the zoo, as was the

use of in-depth semi-structured interviews beyond the boundary of the zoo and zoo visit. In contrast to positivist methodologies, this enabled an in-depth exploration of visitors lived experiences during their encounters with animals at the zoo, and for reflection on such encounters beyond these moments of human-animal interaction. In this way the exploration of visitors' emotional responses was not spatially and temporally limited to within the zoo boundary.

This methodological approach enabled a large, rich set of empirical data to be created, through the recruitment of a variety of individuals and group compositions for the study. Although not seeking to be representative of all zoo visitors, and not aiming to provide quantifiable results, the qualitative research findings offer valuable insights and answers to the research aim and objectives, and have yielded four critical, cross-cutting dimensions, described through this chapter, pertinent to the delivery of a behaviour change agenda at the zoo. In addition, on the basis of this research, a number of suggested directions for future scholarship have been identified, which are discussed in Section 8.7.

The value of utilising a geographical lens and qualitative methodology have been highlighted in the preceding sections of this chapter, and through the empirical chapters 5, 6 and 7. Recent scholarship in the social sciences serves to reinforce the value and importance of moving beyond the psychological framing of behaviour change, with its attendant quantitative methodologies, to enhance understanding of behaviour change, and thus improve our capability to address the scale of challenges faced by society (Spotswood and Marsh, 2016). Specifically, within geographical scholarship, the role of geographers in attending further to the temporal and spatial aspects of human actions, behaviour change and practice has also been highlighted (Reid and Ellsworth-Krebs, 2018).

8.6.2 Insider-outsider role

Section 4.4 on researcher positionality describes my perspective of the benefits and challenges of my insider-outsider role at the WWCT, and the ethical discomfort which arose in carrying out these researcher and Advocacy Officer roles. It is also pertinent at this point to reflect on how this ethical discomfort

also manifest for me in relation to the findings from my thesis. As has been argued in this chapter, this research has revealed the potentiality of the zoo to embrace a more emotionally-centred approach to behaviour change, and to reframe its ambitions for visitor engagement beyond the nudged citizen-consumer, towards the model of active citizenry. However, has also highlighted a number of institutional and strategic challenges for the zoo as a space for behaviour change, which currently limit its capacity to secure the type of active citizenry described in this thesis.

As an insider at the zoo, I have detected a perceived lack of interest or willingness from some quarters to engage with the conceptual or empirical aspects of my research. Whilst my research has revealed potentiality, I have also perceived inertia in relation to the ways in which resources are allocated to the visitor behaviour change agenda.

This has resulted in a rather conflicted position as a researcher. On the one hand my research has revealed potentiality and opportunity. However, my own involvement at the zoo has revealed the persistence of the zoo's colonial antecedents a culture of collection, and as a place of spectacle for entertainment. I have felt at times that I have produced new knowledge and understanding which supports the existence of the zoo and the validity of its 21st century mission as a conservation centre, whilst at the same time experiencing doubts about the extent to which the zoo will be able to engage with the findings from my research. I am also mindful of my experiences of visiting the two wildlife attractions in North America, where discussions with senior staff, and time spent as a visitor, were indicative of institutions engaging in new ways with their visitors, and apparently more developed in terms of their approach and commitment to the behaviour change agenda.

This has raised questions for me regarding the zoo as a space for behaviour change, and to what extent the new focus on visitor behaviour change in pursuit of wildlife conservation, provides a form of spectacle or distraction from the fundamental premise of the zoo as place of captivity, confinement and coercion of animals. This conflict speaks to the tension between Critical Animal Studies

(CAS) and other scholarship in animal studies, discussed in Chapter 3. From a CAS standpoint, this research would undoubtedly be viewed as complicit in supporting the continued existence of the zoo. However, within the framing advocated by Buller (2016) and Wilkie (2015), it can be understood as contributing to the wide range of human animal studies which "…have the potential to reimagine our relationships and responsibilities in relation to animals" (Wilkie, 2015 p.332).

8.6.3 Issues encountered in the field

In the process of developing the methodology for this research study, I identified a number of strengths and limitations, which were described in Chapter 4. In addition, during the course of my fieldwork, I became aware of a number of issues in relation to the implementation of this approach. The following section provides a summary of their key aspects, and provides further reflection as appropriate.

8.6.3.1 Application of a mobile methodology: the go-along interview

This research study employed a methodological innovation for zoo-based visitor research in the form of the go-along interview. The capacity of the go-along to explore participants' 'lived experience' in an informal and unstructured experiential environment was borne out by the rich and extensive data created during the zoo visit. Whilst I found this methodology relatively straightforward to employ, three main issue arose with regard to my interactions with participants in the field. These are described below.

(i) Participant responses to researcher questions

The size of the visitor units that participated in this research varied from one to five participants. For those participants with children under the age of three, I relied on the adult(s) to support the engagement of their children in my questions. Understandably, these children were rather distracted by the animals they were seeing and/or shy of answering questions. Whilst there was therefore a relative lack of verbal data from these young children, their interactions with their parents was extremely valuable. With regard to older young people and

adults, I tried to ensure that I elicited responses to my questions from as many of the visitor unit members as possible. However, with larger groups, they did not always stay together, so I was not able to ask about their responses to all animals encountered. In addition, for adult groups, I found that there was often one participant who was more vocal than the others. Whilst I always endeavoured to bring the more reticent participants into discussion, this was not always possible. Therefore, whilst I recorded a large body of extremely rich data, it is important to reflect that this is not fully comprehensive in terms of the experiences of all the individuals that took part.

(ii) Researcher responses to animal encounters

As discussed in Chapter 4, the inter-subjective creation of knowledge between the researcher and research participant necessitates mindfulness on the part the researcher of the potential to influence participant responses during the course of an interview-based method of enquiry. Much of the value of the go-along is their situatedness within a location relevant to the research topic. However, as described by Brown and Durrheim (2009) in respect to their experience of go-alongs, "…the very situatedness of the interview made this inter-activity unavoidable."(p.920), where inter-activity is used to describe how they found themselves commenting on what was happening around them and on what was being said.

I was aware of not wanting to engage in this level of interaction, or to unduly influence participant responses, as this could potentially have limiting and negative consequences for my empirical data. Nonetheless, the very nature of the go-alongs meant that I was in conversation with people whilst encountering a range of primarily exotic animals and, whilst mindful of such interaction, at times it was hard not to become engaged in some level of comment and reflection on this colourful menagerie. On a very small number of occasions, as a consequence of an unexpected encounter, I did respond verbally and in an animated fashion. However, this proved to be the exception, and for nearly all encounters in all interviews I kept my own feelings and thoughts on the encounters to myself.

(iii) Researcher responses to visitor questions

During the course of the go-alongs I was asked a number of questions by research participants regarding a wide range of issues concerning: animal exhibits; animal ecology (both zoo animal and conspecific in wild); animal care; conservation breeding programmes; and biographies of zoo animals. In each case there was no readily available information on site or zoo personnel to ask. In these instances, if I had the relevant knowledge, I provided short factual answers. At times participants were interested to know my views or the zoo's perspective on a number of these issues This proved more difficult to navigate at times, as participants were genuinely keen to engage and discuss such matters with me. In these cases, I explained that I would need to defer such discussion until the end of the post-visit interview. However, some form of discussion was almost inevitable and I recognise that through provision of information I may have had an influence on participants' subsequent emotional responses at the zoo and beyond the post-visit interview.

8.6.3.2 Engaging with participants after the zoo visit

(i) Researcher-participant interactions

Similar issues arose in relation to eliciting responses to my questions during the semi-structured post-visit interviews. Whilst I endeavoured to secure responses from all participants (as appropriate to their age) to each topic, encouraging and responding to the flow of conversation meant that this was not always possible, particularly for groups of more than two people, and where children and young people were involved. Therefore, as in the case of the go-along interviews, although I recorded a large body of extremely rich data, it is important to reflect that this is not fully comprehensive in terms of the reflections of all the individuals that took part.

(ii) Time frame for engagement

The geographical framing of this research study identified the value of interviewing participants at a time beyond the zoo visit, to see how their experiences at the zoo travelled over time and space beyond the zoo boundary. During the course of these post-visit interviews it became apparent that, for those who were infrequent visitors i.e. visiting annually or less often, it may

have been valuable to meet with them at least one additional time, possibly three to six months after the go-along interview. This would have enabled me to explore how the influence of their encounters with animals at the zoo was manifesting in their expressed feelings towards, and behaviours in support of endangered wildlife, at a point in time much more remote from the zoo experience. However, the time and resources available to undertake this research study meant that this was not a viable proposition.

8.7 Future lines of enquiry

In entering unchartered territory for zoo-based visitor studies, this research study has unearthed a rich seam of enquiry for cultural/animal geographers at the zoo. Whilst not comprehensive, the following section identifies a number of potential avenues for future enquiry, related to human-animal encounters at the zoo, and the advancement of the behaviour change agenda at the zoo:

8.7.1 Further application of geographically-centred, qualitative research

This is one qualitative, geographically-framed study of behaviour change at one UK zoo, which sits alongside a long tradition of a positivist approach to zoo research in general, and specifically in relation to zoo-based visitor studies. Therefore, in general terms, further enquiry set within a geographical perspective, and utilising a qualitative methodological approach is advocated to help build a body of work which can serve to further illuminate the value of such academic enquiry to the zoo community.

8.7.2 Extending this research approach to other UK zoos and wildlife attractions

Paignton Zoo occupies a very specific geographical and cultural location, which is important in relation to the type of visitors, and thus the nature of their responses to their experiences at the zoo. In comparison with the other zoos in the UK, notably ZSL (London Zoo), Chester Zoo, and Edinburgh Zoo, which are also pursuing a behaviour change agenda with their visitors, Paignton Zoo does not draw on a large city-based population or secure large numbers of overseas tourists as part of its visitor cohort. Therefore, extending the approach employed

in this research study to one or more of these large city zoos would yield rich empirical data, which could be compared and contrasted with the experiences of visitors to Paignton Zoo. This could also include a more focused exploration of cultural variations amongst visitor responses.

8.7.3 Further exploration of the temporal aspects of behaviour change at the zoo

8.7.3.1 Extending longitudinal studies of infrequent zoo visitors

As discussed in Section 8.6.3.2 of this chapter, time and resources precluded the extension of the post-visit interview aspect of the fieldwork beyond one interview, up to three weeks after the visit to the zoo. For visitors who come infrequently i.e. only once a year or less, it would be valuable to capture and explore how the influence of the zoo visit, in terms of both expressed feelings and pro-environmental behaviours, may change over longer time periods since the moments of encounter with animals during the zoo visit.

8.7.3.2 Further exploration of the development of relational engagements between visitors and animals

The value of frequent encounters with animals at the zoo in terms of expressed feelings towards and pro-environmental behaviours in support of endangered wildlife was evident for those members who visited the zoo at least monthly. Whilst this study has provided some insight, through the words of these participants, as to how this relational engagement developed, it would be valuable to undertake a more in-depth study over a longer time period to explore how these visitors experience and build their relational engagements with the animals at the zoo.

8.8 Conclusion

With over 700 million visitors per annum to zoos and aquariums worldwide, from a range of socio-demographic backgrounds, these wildlife attractions have the potential to engage with and influence a substantial cohort of people. As the negative impacts of human-induced actions on the natural world continue to increase, it is evident that there is a need to find approaches to engaging

individuals in the conservation of the natural world which move beyond the narrow framing of the psychologically-based approach to behaviour change. Through utilising an alternative conceptual framing and methodological approach, this thesis has identified the value and potentiality of embracing an emotionally-centred approach to the framing of behaviour change within the context of the zoo. This has not only identified the value of a richer engagement with the emotional dimension of individual decision making, but also the need for the zoo to further extend its work beyond the boundaries of the zoo, to help influence the policies and practices within which individual lives are set. However, as also evidenced in this thesis, embracing this more progressive approach to behaviour change is not without its challenges, requiring strategic commitment and investment within educational and conservation advocacy work, whilst balancing the competing demands of delivering aims in relation to visitor entertainment, wildlife conservation and research.

In re-imagining themselves as centres for conservation, zoos have undergone a considerable shift from their origins as menageries, which epitomised the paradigm of human domination over nature. By embracing an emotionally-centred approach to behaviour change, zoos have the potential to help people to reimagine their understanding of, and engagement with, the natural world in more relational terms. With at least one million species at risk of extinction due to human activities (IPBES, 2019), the need for zoos to embrace this more progressive agenda is pressing, and is to be supported and encouraged by both academics and practitioners alike.

Appendix 1: Schematic map of Paignton Zoo

Appendix 2: Semi-structured interview schedule for go-along at Paignton Zoo

THEME 1: What are the emotional responses of the research participants during the zoo visit?	
Questions to explore participant emotions: 1. Can you tell me how you're feeling watching the (insert animal) just now? 2. Can you describe these emotions for me? 3. Can you explain why you have these emotions?	**Probe:** If they say "I feel eg sorry for the (insert animal)", ask: In what ways do you feel sorry? Can you tell me a bit more about why you feel this? If they say "they look happy/sad etc.", ask: Why do you think that? How does that make you feel?
THEME 2: "Zoo history" – to understand people's previous experiences at particular zoos.	
I'd like to know a bit more about any previous visits to Paignton or other zoos: 1. Why do you visit zoos? 2. Can you remember about how you felt about the animals that you saw? **3.** Was there anything else you felt about your visit(s)?	**Probe:** Do they meet your expectations for visit? If not, why not? What animals did you enjoy seeing? And why? What animals didn't you enjoy seeing? And why?

Appendix 3: Semi-structured interview schedule for post-zoo visit interview

1. Background questions on research participants

- Gender
- Age
- Where visiting from
- Number in group
- Relationships b/w group members
- Adults – occupation
- Reason(s) for visiting
- Been to PZ before? If so, how often?
- Been to other zoos? If so which, how often?
- Member of a zoo and/or other wildlife organisation?
- Do you have any pets?

2. Semi-structured interview questions

THEME 1: Relationships/engagement with animals in research participants lives – to get some background/contextual information
1. How would you describe your interest in wildlife and nature? 2. Can you describe your early memories of animals and how animals featured in your upbringing and early years? 3. How do animals play a part in your life today? 4. Apart from the zoo, where else do go to see animals and other wildlife? 5. What is it about seeing animals at the zoo, compared to other places, that is important to you?
THEME 2: Recap on zoo visit, using photo-montage of photographs I took during go-along
Provide photo-montage (as appropriate) of zoo visit. Recall that the participants expressed a range of emotions in response to the animals that they saw during the go-along. For those participants who stayed on in the zoo after the go-along, ask: 1. Is there anything else you'd like to tell me about the rest of your visit, what other animals you saw, and what you experienced?
THEME 3: The influence of the emotions that participants expressed during encounters with animals at the zoo, on their expressed feelings towards, and pro-environmental behaviours in support of endangered wildlife and the wider natural world.
1. Does the way you feel as a result of encountering animals at the zoo influence how you feel about endangered wildlife? If yes, how? If not, why not? Has this changed over time, and if so, how?

Do some animals at the zoo have more influence on these feelings than others?

2. Does the way you feel as a result of encountering animals at the zoo influence how you feel about the wider natural world?

   If yes, how? If not, why not?

3. Does the way you feel as a result of encountering animals at the zoo have an influence on the things you do, and how you might help to support: (i) endangered wildlife; and (ii) the wider natural world. Give some examples to aid discussion as required eg:

   - Found out more about animals
   - Found out what can do to help care for endangered wildlife/wider natural world – home and overseas
   - Done something that you feel can help endangered wildlife and their environment in some way

   If yes, how? If not, why not?
   Has this changed over time, and if so, how?

4. Depending on answers to question 3, ask about their actions in relation to the WWCT's four conservation advocacy priorities: palm oil; marine plastics; wildlife trade; everyday household practices

5. Is there anything else that the zoo could do to help you get involved in wildlife conservation?

6. Is there anything that the zoo could do better to improve your experience when you visit?

Appendix 4: Research participant advert for Facebook and online publications

Appendix 5: Text for Track B Ethics submission

Title

An investigation of the emotional landscape of the zoo experience in contributing to the wildlife conservation mission of the zoo community

Lay Summary

The purpose of this research is to examine how the zoo community's efforts to deliver behaviour change i.e. engaging their visitors in activities to support wildlife conservation, could be further informed by a better understanding of the emotional aspects of the zoo visitors' experience. Through accompanying people on their visit to the zoo, the research hopes to gain an in depth understanding of how people experience their time at the zoo, and in particular how they respond to the wide variety of animals that they encounter. Through interviews with these visitors in the weeks following the zoo visit, the research will explore how these emotional responses shape both visitor's relationships with animals and other wildlife and actions in support of wildlife and nature conservation. The research will engage with visitors coming to the zoo as individuals, couples, family or friendship groups.

The findings of this zoo-based research will then be used to inform interviews with four UK zoos, which are engaged in programmes to encourage and support pro-environmental behaviours within their visitor cohorts, and BIAZA (British and Irish Association of Zoos and Aquariums) the professional body which represents over 100 zoos and aquariums. This will enable discussion with these organisations about how the findings could help to shape future approaches to behaviour change within the zoo community. This fieldwork will be undertaken at Paignton Zoo, in South Devon, which is owned and operated by the Whitley Wildlife Conservation Trust. The Trust is also funding this research, which is being undertaken in partnership with the University of Exeter.

This research will contribute towards a PhD study to be completed by the end of June 2019.

Purpose of this project and its academic rationale

The purpose of this research is to examine how the zoo community's efforts to deliver behaviour change i.e. engaging their visitors in activities to support wildlife conservation, could be further informed by a better understanding of the emotional aspects of the zoo experience. At present zoos primarily utilise community-based social marketing to deliver their behaviour change programmes. This research postulates that a richer understanding of, and engagement with, the affective dimension of the zoo experience has significant potential utility for framing alternative approaches to behaviour change at the zoo. Through empirical study undertaken at Paignton Zoo in South Devon, the research hopes to provide an insight into the emotional responses during the zoo visit and the meaning of these responses on visitors' relationships to wildlife and wider nature. From this study an alternative conceptualisation of behaviour change will be developed for consideration and discussion with the zoo community.

Brief description of methods and measurements

This research will be undertaken in two main phases, with two different types of research participants: zoo visitors and zoo professionals. No research will be undertaken with zoo animals.

(i) Zoo visitors

Go-along interviews (Kusenbach, 2003) and participant observation (Crang and Cook, 2007) will be undertaken at Paignton Zoo with a sample of visitor units (individual, couple, family/friendship group) coming to the zoo. The researcher will accompany each visitor unit for part of their visit around the zoo. The go-along interviews will be audio-recorded and field notes will be made to record participant observation. A GPS tracker will be used to record the spatial journey around the zoo. Photographs will also be taken by the researcher to capture key points of interest to the visitor unit during the visit. These photographs will be used primarily for photo-elicitation (Crang and Cook, 2007) purposes in the post-visit interview, to help recall and remind participants of their visit and their responses at the zoo. In addition, some may be useful for illustrative purposes as part of my thesis or other research papers or presentations (see later section for more detail on taking and use of photographs).

Subsequently, one to two weeks after the zoo visit, a sedentary semi-structured interview (audio-recorded) will be undertaken with each visitor unit in their own homes (or other mutually convenient location). The photographs taken during the zoo visit will be used for photo-elicitation purposes at this sedentary interview. This second interview will be a maximum of one hour in length.

It is hoped that a diversity of visitor units can be recruited, both in terms of size and make-up of the groups. As participants are being asked to give a significant amount of time it is appropriate that a suitable incentive will be offered (see participants' recruitment section for further detail).

The go-along interviews and participant observation will enable participants' responses during the day out at the zoo to be captured and described. Some exploration of the meaning of these responses on visitor's relationships to wildlife and wider nature conservation will also be undertaken. The post-visit interview will allow for further exploration of these responses and their meanings for visitors.

(ii) Zoo professionals

The phase 1 visitor research will be followed up and complemented with a second phase of fieldwork – to discuss the emerging findings from my analysis of phase 1 of the study through expert interviews with key staff from the zoo community. This fieldwork will take the form of semi-structured interviews (audio-recorded) with key staff members at four UK zoos – Chester, London, Bristol and WWCT – and with staff from BIAZA (British and Irish Association of Zoos and Aquariums – which represents over 100 zoos and aquariums). These zoos have been chosen as they are actively engaged with the behaviour change agenda on some level. I have already established working relations with these zoos and BIAZA.

In addition, throughout the research period I will also create my own zoo diary, an ethnographical account. This will enable me to reflect on my multiple roles/experiences as zoo visitor, nature conservation professional and researcher. I will also capture and explore my own emotional responses to zoo animals and the wider zoo experience.

Participants - Recruitment methods; number; age; gender; exclusion/inclusion criteria

(i) Zoo Visitors

Recruitment: Visitor units (a unit is taken to describe an individual, couple or larger group of people visiting the zoo together) will be recruited with the support of the WWCT by advertising the study utilising a variety of channels to include: Paignton Zoo website, mailing list and social media. Advice has been sought on the most appropriate channels from the WWCT Guest Services Manager and the WCT Communications Officer. A copy of this advert is enclosed with this application. The advert outlines the purpose and nature of the study, asks people if they would like to take part, and gives them my contact details. It is hoped that a diversity of visitor units can be recruited, both in terms of size and make-up of the groups. As participants are being asked to give a significant amount of time, a suitable incentive will be offered. This incentive is made clear in the Project Information Sheet for Zoo Visitors. It has been discussed and agreed with WWCT Guest Services Team. Participants will be offered one of the following options:

- Free tickets (valid for a year) for each visitor unit participating in the study to Paignton Zoo, Newquay Zoo or Living Coasts
- A standard Animal Adoption Pack
- A half price Animal Experience

It should be noted that the mobile phone number in the advert is not a personal one – it is attached to a pay as you go SIM card that I have purchased specifically for my research only.

Once people respond to the advert, I will then provide them with more details via email. This will include a Project Information Sheet. Two different versions of this Project Information Sheet have been developed for zoo visitors (see attached) and have been checked for their readability score (NIACE, 2009):

Project Information Sheet for Zoo Visitors – Adults and Young People: this has a readability score of 8.5 which is in line with the recommended score of around 8 for written materials for the general public (NIACE, 2009).

Project Information Sheet for Zoo Visitors – Children: this has a readability score of 4.9. This information sheet is aimed at older primary school children. A readability score of around 6 is the approximate reading level on completion of primary school (NIACE, 2009).

Once they have agreed to participate, I will liaise with them to arrange a suitable date for their zoo visit and a time to meet them on arrival at the zoo. Before commencing the research, all participants will sign a consent form or give their verbal consent (please see section on Consent and Participant Information Arrangements for details of consent process).

Before I start the go-along interview at the zoo (and the post visit interview) I will recap with participants the key elements of the Project Information Sheet to reassure all participants about their involvement in the project and to ask any other questions they might have.

During the go-along interview at the zoo, and at the post visit interview, I will only ask questions of, and interact with children and young people, in the presence of adults (parents/carers). Interview schedules for the go-along interviews at the zoo and for the post-visit interview are attached with this application.

During the zoo visit I will also arrange a time, date and location to meet them for the post-visit interview, which will take place one to two weeks after the zoo visit interview.

After the participants have undertaken the post-visit interview, I will contact participants to thank them for their involvement and to make arrangements for them to receive their

incentive. At the end of my research I will provide research participants with a short summary report about my research and its findings.

Number of participants: The exact number of visitor units to be recruited has not been set. This is a novel methodological approach at the zoo, so at this stage it is hard to gauge how easy or difficult it may be to recruit participants. It is anticipated that the region of 10 visitor units could provide rich body of empirical data. However, this will be reviewed once the first few interviews have been undertaken.

Age/gender etc: It is envisaged that the visitor units will be made up of a variety of ages and mixed gender.

Exclusion/inclusion criteria: My intention is to undertake the go-along with the whole group, including children/young people, subject to consent (either written or verbal) being given by all members of the group. However, if a member(s) of the group does not wish to participate I will ensure that I do not record anything that they say, make any notes in relation to their behaviours at the zoo, or take any photographs relating specifically to their experience and/or which they would be included in. If any of their conversation is inadvertently recorded as part of discussions with the participating members of the group, these will not be transcribed or referred to in any way in my empirical data.

(ii) Zoo professionals

Recruitment: I will email and/or telephone existing contacts at the relevant zoos and BIAZA to explain the purpose of my research and to identify in consultation with them who would be the most relevant staff member(s) to interview. A Project Information Sheet has been developed for this audience (see attached):

Project Information Sheet: Zoo Professionals: this has a readability score of 10 (NIACE, 2009), and is targeted at an informed audience which is already working in the field of visitor engagement, education and behaviour change.

Once they have agreed to participate, I will arrange a suitable time, date and venue for the interview. It is likely that these interviews will take place at the offices of each organisation. An interview schedules for these interviews is attached with this application.

At the end of the research I will provide these participants with a short summary report about my research findings. I will also offer to do a presentation to other staff within their organisation. I will also provide them with a link to access my PhD thesis once catalogued.

Number of participants

Maximum of two per institutions, which would equate to ten participants.

Age/gender

Determined by the staff member in post, but likely to be a group of mixed gender and age.

Exclusion/inclusion criteria:

Not applicable

Consent and participant information arrangements, debriefing. (Not relevant for animal research) Please attach intended information and consent forms.

Host organisation for fieldwork: The WWCT is already aware of and content with the research and planned methodology (Dr Amy Plowman, Director of Research and Education at WWCT is

my third supervisor). Dr Plowman has identified that WWCT is happy to proceed with the research on the basis of its approval by the Department of Geography's Ethics Committee.

Interviews with zoo visitors: Visitor units responding to the advert for research participants will be contacted to provide more information about the study and to confirm arrangements for the date and time of their visit to Paignton Zoo. On the day of their visit, the researcher will meet and greet the visitor unit and spend a short time with them, to ask any questions they may have and to secure written consent/verbal consent (three consent forms for: adults; children and young people; and zoo professionals are attached with this application, along with the script for verbal consent for children/other relevant individuals). For all young people under 18 years old I will also seek written consent from their parent/carer, as the second stage interview is likely to be undertaken in their home – whilst this written parent/care consent would normally be only for those young people under 16 years of age, it is necessary to increase this age limit to under 18 years as the post-visit interview is likely to take place in their home environment (NCB, 2011). For younger primary school children or for other children for whom their parent/carer does not feel that the written consent form is appropriate, I will seek verbal consent at the start of the zoo visit. Ideally for all children and young people I will get consent directly from that person (either written or verbal). I am aware that the invitation to participate may be communicated via a gatekeeper i.e. parent or carer. Therefore, for visitor units including children and young people, when people initially express their interest in participating in the research, I will brief them on the importance of voluntary consent (NCB, 2011).

Interviews with zoo professionals: I will approach the most relevant contacts - identified through initial discussion -via email. I will provide them with a Project Information Sheet: Zoo Professionals (see attached) and a consent form, and arrange suitable date, time and venue to interview them. When I meet the staff member for the interview, I will secure written consent (see attached form).

A clear but concise statement of the ethical considerations raised by the project and how you intend to deal with them.

NB in the following section 'participants' is used to refer to both zoo visitors and zoo professionals, unless specifically identified.

Permission for photos:

It is anticipated that these photographs will primarily be of animal exhibits and other elements of the zoo, but it may be that on occasion the research participants wish to be included in the photographs. Photographs including participants will only be taken with their consent. The main use of these photographs will be as part of the post-visit interview, where they will be used for photo-elicitation purposes, helping visitors to recall their responses during the zoo visit. I may wish to use some of these photographs to help illustrate my research in my PhD thesis, papers and/or presentations. If any of these photographs contained any of the research participants, I would seek their written permission for the image to be used. This approach to the taking and use of photographs is explained on the Project Information Sheets.

Anonymity of research findings/photos:

Participants (both zoo visitors and zoo professionals) will be made aware their names will not be used (or any unnecessary personal references made) within the research findings. In the case of zoo professionals, the consent form does ask whether the individual participating would be happy for their organisation to be named. Where photographs are used to illustrate

the research in published materials, any including participants will only be used with written consent from participants.

Storage of data:

None of the data collected during the research will be kept on public servers. In addition, no unnecessary copies of the data will be made. No data will be distributed without anonymising participant responses.

Ability to abstain from research participation or interview questions:

At the outset participants will be told that they may abstain from the research or remove themselves at any point without prior warning and that they can also choose not to answer any questions asked of them. It will be made clear that they can do any of the above without prejudice to the incentive offered.

Recording of interviews:

Participants will be made aware of the use of recording equipment and that the recordings will be kept confidential at all times, with names anonymised in the transcribed data.

Participant observation:

Zoo visitors will be made aware of the purpose and nature of the participant observation at the start of their zoo visit. It will be made clear that any observations made during the course of the research will be anonymised and that no unnecessary personal references will be made.

Risk Assessment:

A Risk Assessment template has been completed and signed off by CLES health and safety. A copy of this document is attached with this submission.

DBS:

I have explored the need for me to have a DBS check to undertake research with zoo visitors. I have taken advice on this from the WWCT Director of HR & Finance, and from Dr Matt Finn at the University of Exeter. Given the nature of the proposed research methodology, I can confirm that a DBS check is not required. A statement to this effect from Chris Pyne, Director of HR and Finance is attached with this submission.

Appendix 6: Project information sheet: adults and young people

Project Information Sheet

Adults and Young People
Page 1

Title

Experiences at the zoo: Investigating the impact of emotions in people's encounters with animals

What is the purpose of this study?

My research is investigating people's experiences at the zoo. I am particularly interested in people's responses to the animals they see. This will help zoos to better understand how they can encourage people who visit the zoo to get involved in wildlife and nature conservation.

What will happen if I take part?

If you decide to take part I will contact you to find out the planned day of your visit and to arrange to meet you at the zoo. In order to record and understand your experiences at the zoo I would like to accompany you (and those visiting the zoo with you) for part of your visit, to talk with you (and those visiting the zoo with you) as you walk around and to make some notes about the visit. If you agree to this, our conversations will be audio-recorded. During your visit to the zoo I would also like to take photographs of the animal exhibits and/or any other parts of the zoo visit that are important to you. If any of these photographs were to include you, I will only take them if you agree to this.

I would also like to come and visit you one to two weeks after this visit, at a time and place to suit you, to talk with you about your experiences at the zoo. This would take a maximum of one hour, and if you agree, our conversation will again be audio-recorded.

Taking part in this research is entirely voluntary and so if you did want to withdraw at any time that is just fine.

Once you have taken part in the zoo and post zoo visit parts of the research, as a thank you for participating, I would like to offer you/the group you visited with, one of the following:

- Free tickets (valid for a year) for you/your group to visit either Paignton Zoo, Newquay Zoo or Living Coasts
- A standard Animal Adoption Pack
- A half price Animal Experience

How will my information be used?

The information provided by you will be used for my research. All the information I collect will be treated as confidential and will not be used in a way that would allow for the identification of

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your individual responses. I will make sure that your data is stored securely and anonymously (without your name on it) at the University of Exeter and then at the UK Data Archive, in order to make it available to other researchers in line with current data sharing practices.

When we meet after you have been to the zoo, I will use the photographs taken at the zoo to help remind us of your experiences. I may also use some of these photographs to illustrate my research in published materials. If any of the photographs I would like to use include you, I will only do so with your written permission.

What will happen to the results of the study?

The results will be used as part of a PhD thesis, research papers and/or presentations. Short quotes from your interview may be used in these, but would only be used in a way that would not disclose your identity to others.

Once I have completed my research I will also provide you with a short summary report to let you know what I found out.

Who is funding the research?

The study is funded by the Whitley Wildlife Conservation Trust, which owns and operates Paignton Zoo, and is being undertaken in partnership with the University of Exeter. It has been approved by the Department of Geography's Ethics Committee at the University of Exeter and by the Whitley Wildlife Conservation Trust.

I greatly value your involvement in this study. If you have any further questions at any stage, please do not hesitate to contact me, Susan Warren:

Email: sw572@exeter.ac.uk

Mobile: 07909 958125

Address:
Susan Warren
Geography PGR, Room D385
Amory Building
University of Exeter
Streatham Campus
Exeter
EX4 4QJ

Appendix 7: Project information sheet: children

Project Information Sheet

Children
Page 1

To be read by a parent/carer if required.

Title

Experiences at the zoo: Investigating the impact of emotions in people's encounters with animals

What is this project about?

My name is Susan Warren and I am a researcher at the University of Exeter. I want to find out about people's visits to the zoo. I want to learn about:

- how people feel about the animals they see at the zoo
- how people might want to help look after these zoo animals
- how people might want to help look after animals in the wild

This can help zoos to understand how they can help visitors to care for wildlife.

Why me?

Lots of young people visit the zoo so it is important that I can find out more about what these visits are like for young people like you. Your parent/carer has told me that you plan to visit Paignton Zoo soon so I want to invite you to be part of my research.

Do I have to take part?

No you don't! It is up to you. I would like you to read this information sheet. If you agree to take part, I would like you to write your name on two forms. I will also ask your mum, dad or carer to write their name on the forms and give one back to me. You can still change your mind later. If you don't want to take part, just say no!

What will happen on my visit to the zoo?

If you say 'yes' to taking part I will come with you for some of your trip to the zoo. I will talk with you (and the people you are visiting the zoo with) as we walk round. I will record what we talk about and I will also make some notes. I will also take some photographs of things that we see at the zoo.

After the visit I would like to come and see you (and the people you visited the zoo with) to talk to with you about how you got on at the zoo. This will either be at your home or somewhere else that you mum, dad or carer chooses. We will also look at the pictures I took during your visit. I will record what we talk about and I will also make some notes.

I will only record what we talk about, make notes and take photographs that you are in if you agree. You do not have to take part if you don't want to - that is just fine. Please tell your parent/carer and I will make sure that I do not record anything that you say or do.

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Project Information Sheet

Children
Page 2

What will you write about me?

I will use the information from your visit in my research. I will not use your name in this. Nobody will be able to tell that it is you that I have written about.

When I have finished my project I will send you and your parent/carer a report. This will tell you what I have found out about people visiting the zoo.

What will you do with the photographs?

I will use the photographs to help remind me about your visit to the zoo. I may want to make some use of photographs in my work. If you are in any of the photographs that I take at the zoo I will only use them if you agree. If you do not people want to know it is you, I will make sure that no one can recognise you.

How can I find out more about this project?

Your mum, dad or carer may be able to answer your questions. You can always get them to contact me if you want to know more. I can also answer any questions when I meet you at the zoo or when I come and visit you after your trip to the zoo.

Who is organising this research?

My work is supported by the Whitley Wildlife Conservation Trust, which looks after Paignton Zoo, Living Coasts and Newquay Zoo. It is also supported by the University of Exeter.

Contact details

Email: sw572@exeter.ac.uk

Mobile: 07909 958125

Address:
Susan Warren
Geography PGR, Room D385
Amory Building
University of Exeter
Streatham Campus
Exeter
EX4 4QJ

Appendix 8: Consent form: adults

Consent Form

Adults

Project title: Experiences at the zoo: Investigating the impact of emotions in people's encounters with animals

Researcher: Susan Warren

Institution: University of Exeter

- ☐ I, the undersigned, have read and understood the Project information sheet and had the opportunity to ask questions.
- ☐ I understand that taking part in the Project will include being interviewed and audio-recorded twice, firstly during my visit to the zoo, and then in a second interview 1-2 weeks after this visit.
- ☐ I understand that the researcher will make some notes on the activities I'm involved in during the visit.
- ☐ I understand that during the zoo visit the researcher will take photographs of the animal exhibits/other parts of my visit that are important to me. If any of these photographs would include me, they will only be taken if I agree.
- ☐ I understand that my personal data will be kept confidential and kept in accordance with data protection legislation.
- ☐ I understand that my words may be quoted in Project outputs such as PhD thesis, publications, reports, but my name will not be used.
- ☐ I understand that any photographs that contain an image of myself can only be used in Project outputs such as PhD thesis, publications and reports with my written permission.
- ☐ I understand that I can withdraw from the study at any time, without giving a reason.
- ☐ I agree to assign the copyright of my interview data to the Project Researcher, Susan Warren, and that it will be stored in a data archive for future use, with identifying details removed.

Name of Participant _____

Signature of Participant _____

Name of Researcher _____

Signature of Researcher _____

Date _____

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Appendix 9: Consent form: children and young people

Consent Form

Children and Young People

To be completed by young person and parent/carer

Project title: Experiences at the zoo: Investigating the impact of emotions in people's encounters with animals

Researcher: Susan Warren

Institution: University of Exeter

PART A: To be completed by the young person

I have read the Project Information Sheet. I understand what the project is about and how I will be part of it. I know that I do not have to answer all the questions that I am asked. I know that I can decide to stop being part of the research at any time.

I agree to take part in the study on visitors to Paignton Zoo. I would like to take part in these activities (please tick):

☐ Talking to the researcher with my family/friends as I walk round the zoo.

☐ Talking to the researcher with my family/friends (in a place chosen by my parent/carer) after my visit to the zoo.

Name _____ **Signature/mark** _____

Age _____ **Date** _____

PART B: To be completed by the parent/carer

I have read the Project Information Sheet and give permission for the child (named above) to be included.

Name _____

Relationship to child _____

Signature _____

Name of Researcher _____

Signature of Researcher _____

Date _____

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Appendix 10: Verbal consent script

This script will be used to gain verbal consent from younger primary school aged children 6 or from any other children for whom their parent/carer does not feel that the written consent form is appropriate.

Hello (insert name of participant). My name is Susan Warren and I'm a research at Exeter University. I'm trying to find out about how people feel about the animals they see at the zoo. I would like to ask you to help me with this study, but first let me tell you what will happen if you decide to help me.

I will walk around the zoo with you and your family/friends for some of your time at the zoo. I will talk to you about the animals that you see. I will record what you say and take some notes. I will take some photos of things that you like. I will come and see you and your family/friends a week or so after your trip to talk to you about your day at the zoo. I will write up what we talk about and what you do. When I write and tell people about my study, I will not use your name and no one will know that it's you.

Your mum/dad/carer say that it is ok for you to be in my study. But you don't have to if you don't want to. No one will be upset if you decide not to. If you want to be in the study now, but change your mind later, that is ok. You can stop whenever you want – just let me know.

You can ask me questions whenever you want. Do you have any questions for me now? Would you like to be in my study?

Appendix 11: Template for field notes for go-along interviews

1. Background information

Visitor unit:

Time and duration of go-along:

Weather:

Zoo conditions (how busy, what types of visitors):

2. Route around zoo i.e. animals seen plus café/playground stops etc.

3. Animal activity and human-animal interactions (at each exhibit) and human interactions walking between exhibits

4. How did the interview go?

5. Thoughts/issues which arose during discussion

Appendix 12: Potential research participant background questionnaire

Thanks very much for your interest in taking part in our research. So that we can check eligibility and ensure that we include a diverse sample of zoo visitors (e.g. members, non-members, family groups, friends, couples), please complete the form below and return it to Susan Warren at: sw572@exeter.ac.uk. Please note that this information will be held securely and will only be used for the purposes of this research.

1. Name:

2. Age:

3. Gender: female/male/other/prefer not to say?

4. Are you a member of Paignton Zoo? Yes/No

5. Who will you be visiting the zoo with? (e.g. solo visit, with family members, friends):

6. Age(s) of those likely to be visiting Paignton Zoo with you:

8. Where do you live?

7. Have you visited Paignton Zoo before? Yes/No

If 'yes' to Q7 please answer Q8

8. How often do you visit Paignton Zoo?

Appendix 13: Coding framework for go-along interviews at the zoo

Code/category	Code contents & notes
1. Emotional responses to animals during visit	
1.1 Enjoyment (happy, excitement, pleasure)	Favourite animals, exhibit design (inc. EE), non-human charisma (inc. baby animals), animal behaviours, perceptions animal well-being, visible animals, comparison with pets, comparison with humans/anthropomorphism, cultural refs, animal group structure
1.2 Concern, worry & sadness	Exhibit design, animal behaviours, animals no longer in wild, animal welfare, human behaviour in zoos, human impacts on wildlife & nature, death of zoo animals, captivity
1.3 Love, empathy & connection	Non-human charisma (inc. baby animals), animal behaviours, comparison with humans/anthropomorphism, comparison with pets; frequency of encounters
1.4 Awe & wonder (fascination, amazement, respect, admiration, surprise)	Non-human charisma, animal behaviours, comparison with humans/anthropomorphism, animal noises & smells, exhibit design
1.5 Fear/anxiety (intimidated, anxious)	Animal physical characteristics, animal behaviours, animal group structure, sex of animal, enclosure design
1.6 Discomfort	Proximity to animals, captive animals
1.7 Anger/disgust	Human impact on species & habitats
1.8 Dislike	Not liking particular animals – physical/behavioural characteristic; cultural references; past experience
1.9 Boredom & indifference	Animal physical characteristics, animal behaviours, frequency of encounters
1.10 Conflicting/mixed emotions	
2. Experiences & emotions in response to previous animal encounters	**NB code emotional responses in line with Code 1 eg. Enjoyment is 2.1.1 or 2.2.1 etc**
2.1 Paignton Zoo	Exhibit design, animal behaviours, non-animal elements, treatment of animals
2.2 Other zoos & aquariums	Exhibit design, animal behaviours, non-animal elements, treatment of animals
2.3 Other embodied experiences	
2.4 Mixture	
3. Importance of zoo experience of animals	
3.1 Embodied experience (reality)	
3.2 Closeness of encounters/close up	Intimacy
3.3 Never see them otherwise	
3.4 Connection with animals	
3.4.1 Zoo animals	For some connection focus is with zoo animal
3.4.2 Conspecifics in wild	Connection & care for zoo animal extends to wild
3.5 Seeing care of animals	
3.6 Range & types of species	
3.7 Safe place to see	
4. Visitor perceptions of zoo animals	
4.1 Emotions/well-being	Exhibit design, animal behaviour, keeper activity
4.2 'Wildness'	Wild animal, more domesticated

4.3 Responses to zoo visitors	How people think animal is responding to their presence
5. Interactions at the zoo	
5.1 Parent-young child (<3 yrs)	Pointing things out, describing, reminding/reinforcing, imitating animals, discussing, imparting information
5.2 Adult/family group	Pointing things out, sharing experiences & knowledge, discussing, memories of past visits, seeking out animals, reading information
5.3 Visitor-animal	Talking to animals, trying to attract animals attention, reaching out to animals/desire to touch, imagining what animals think/say/do, perceive or wonder if animals responding, photographing, collecting feathers
5.4 Researcher-led	What Researcher tells visitors: exhibit design, zoo animal ecology, family structure animal groups, behaviour of animals in zoo & wild, zoo licensing, animal management (culls, escapes, moving b/w zoos)
5.5 Mixture of interaction	
6. Relating to animals (how people do it/things that help)	
6.1 At the zoo	
6.1.1 Individual animals	Naming, 'back story'/biographies, favourites, adoption
6.1.2 Particular species	Favourites
6.1.3 Visit experience	Frequency, memories, close up encounters, reality, talks/keeper chats, behaviours, photographs, experiences eg zoo tailored events, general viz experience
6.1.4 Relating via pets	
6.1.5 Relating to humans/anthropomorphism	
6.1.6 Post visit connections	Hearing animals from home in Paignton
6.1.7 Other media	TV/films – cultural references
6.2 Out with the zoo	
6.2.1 Embodied encounters	
6.2.2 Virtual encounters	TV
7. Alternatives to the zoo – experience & learn about animals and natural world	
7.1 First-hand encounters	
7.1.1 Other wildlife attractions (safari parks, farms etc)	Up close encounters, touching animals
7.1.2 Out in 'nature' (local parks, garden, reserves)	Up close encounters, feeding animals
7.1.3 Pets	
7.1.4 Overseas in situ	
7.2 Virtual encounters	
7.2.1 Media (TV, YouTube, books etc)	
7.2.2 Museums	
8. What people like & dislike about Paignton Zoo	
8.1 Like	
8.1.1 Exhibit design & setting	Natural, immersive
8.1.2 Safety	Encounters with animals feel safe, safe place to walk
8.1.3 Amenity value	Walk, play
8.1.4 Health & well-being 8.1.4.1 Animal-related 8.1.4.2 Environment-related	De-stress, physical activity, sociable, happy memories, invigorating
8.1.5 Non-animal elements	
8.1.6 Interactive shows	

8.1.7 Animal welfare	Visible signs of care, perceptions of care, well being
8.1.8 Conservation & education work	
8.2 Dislike	
8.2.1 Expense of visit	
8.2.2 Electronic communications with members	Only e-comms now
9. Why people value zoos	
9.1 Education & appreciation	Build awareness & interest from young age, keeper contact
9.2 'Beacon of hope'	Safeguard against extinction
9.3 Exotic species	Only place to see exotic & particular animals
9.4 Family entertainment	Visits over lifetime, holidays
9.5 Embodied experience	
9.6 Closeness/ close-up encounters	Intimacy, photography
9.7 Animal care	Seeing care & how to behave with animals
9.8 Immersive/ 'natural' experience	
10. Concerns about zoos	
10.1 Confinement	Animal welfare, enjoyment versus captivity
10.1.1 Captivity	
10.1.2 Animal welfare	
10.2 Commercialisation	
10.3 Type of zoo	Good, bad
10.4 Animal management	Cull, escapees, moving individuals between zoos
10.5 Views of others (other peoples concerns)	Work colleagues, family, friends
10.6 Expense of visit	
10.7 General attitude	Attitudes towards zoos
10.8 Conflicting emotions & thoughts	
11. Acquiring knowledge from the zoo	
11.1 Paignton Zoo	
11.1.1 Talks & activities programme	
11.1.2 Zoo keepers & volunteers	
11.1.3 Other visitors	
11.1.4 Outreach	Art trails
11.1.5 Multi-media	Newsletter, Facebook, web page, Twitter etc
11.2 Other zoos	
11.2.1 Keeper, staff & volunteer interactions	
11.2.2 Multi-media	
11.2.3 Talks/animal experiences	
11.2.4 Other visitors	
12. Visitors questions…..missing information at PZ	NB this is the things visitors asked me
12.1 Exhibits	
12.2 Animal ecology	Sex of animal, development of animal characteristics, nutrition
12.3 Care of animals	
12.4 Captive breeding	
12.5 'Back story'/biographies individual animals	
13. Challenges/tensions for zoos	
14. Good quotes	
15. Other	

Appendix 14: Coding framework for post-zoo visit interviews

Code/category	Code content & notes
1. Experiencing & engaging with animals & nature over lifetime	
1.1 Embodied encounters	
1.1.1 Pets	Learning how to care, developing relationships
1.1.2 Wildlife attractions, local parks, nature reserves, garden	Wildlife attractions, local places
1.1.3 Zoo	Memories
1.2 Virtual encounters	TV, books, films, museums
1.3 Family-influenced	Nurturing interest & love of animals/nature in children, teaching how to care & appropriate behaviour, family outings – wildlife attractions, local places
2. Importance of zoo experience of animals	
2.1 Embodied experience	
2.2 Closeness/close up encounters	Intimacy
2.3 Never see them otherwise	
2.4 Connection with animals	
2.4.1 Individual zoo animals	"seeing your friends"
2.4.2 Conspecifics in wild	
2.5 Range & types of species	Importance of seeing particular animals – 'zoo' animals
2.6 Creates memories	For individuals & families
2.7 Validates learning	What children learn via books/tv is validated by seeing in real life
2.8 Safe environment	
2.9 'Natural' habitats	Seeing animals in 'natural' habitats
2.10 Immersive	
2.11 Touch	Being able to touch some animals
2.12 Increases knowledge and awareness	
2.13 Relate to humans	
3. Feelings towards endangered wildlife as result of zoo visit	
3.1 Types of feelings	
3.1.1 Concern, worry & sadness	Animals at zoo one of only a few left, future extinctions, impact human actions on wildlife. Loss of individual animals to other zoos.
3.1.4 Empathy & connection	For zoo animals, animals in wild
3.1.8 Anger & upset	At human actions in relation to these species
3.1.9 Unconcerned	Beyond boundary of zoo, any concerns fade away
3.2 Influences on feelings	
3.2.1 Frequency of encounters	
3.2.2 Type & location of animal	Zoo v wild animal
3.2.3 Zoo boundary	Feelings can recede after zoo visit or not!
3.2.4 Information and awareness	
3.2.5 Connection with zoo animals	
3.2.6 Other media	
3.3 Nature of feelings (strength)	
4. Feelings towards natural world at result of zoo visit	
5. Impact of experiences at zoo on pro-environmental behaviours	NB wide view of what could constitute pro-environmental behaviours is taken
5.1 Zoo-related	

5.1.1 Financial	Membership, animal adoption, donations
5.1.2 Learning	Learning about zoo animals back home – TV, book, internet
5.1.3 Advocacy	Talking to work colleagues, friends & family, local retailers re zoo & conservation
5.1.4 Sharing memories & stories	With family members back home
5.1.5 Family visits	Bringing grandchildren/children to zoo
5.1.6 Product choices	Palm Oil, animal welfare products, sustainability issues
5.1.7 Other resources for zoo	Enrichment materials
5.2 Everyday activities	3Rs, eco-friendly products, wildlife gardening, not littering. Also includes perceptions of behaviours eg "I'm doing it all already" "We do everything we can".
5.3 Wildlife-focused events	Eg community pond building
6. Barriers to pro-environmental behaviours	
6.1 Meaning of zoo visit	Limited impact/impact doesn't last
6.2 Focus & logistics of zoo visit	Time to take in information, desire to read at the zoo
6.3 Perceptions of behaviours	Think doing all that can
6.4 Personal resources	Financial, time available
6.5 Personal agency	Overwhelmed
6.6 Lack of knowledge	What are issues, how to help
6.7 Perception of responsibility	Countries where issues located need to act
6.8 Perceptions of what "helping" wildlife means	Money need to go directly to "help animals"
6.9 Wider infrastructure/systems	Local council services,
6.10 Habit & lifestyle	Where shop, what buy, enjoyment current practices
6.11 Desensitised	Information/image over-load on media platforms
6.12 Deaf ears	Trying to be an advocate, but people don't listen
6.13 Lack of opportunities	At zoo
7. Where visitors learn about pro-environmental behaviours	
7.1 Zoo	
7.2 School	
7.3 Other wildlife attractions & events	
7.4 TV & other media	
7.5 Museums & other visitor attractions	
8. What visitors want from zoo to help them learn & take action	
8.1 Information & interactives	What the issues are, how people can help, what the zoo is doing for wildlife conservation in situ & ex situ
8.2 Harsh images	People need to see & understand realities facing animals
8.3 Talks & chance to talk to zoo staff	Organised and informal opportunities to chat
8.4 Personalised relationships with animals	Names, family relationships, 'back story'
8.5 Non-financial ways to help	
8.6 Create sense personal agency	
8.7 Fundraising	How to contribute, what can contribute to
8.8 Don't know	
8.9 Positive experiences	So keep coming back
8.10 Outreach	Maintain relationship with zoo post-visit
8.11 Focus efforts on children	
9. Why people value zoos	
9.1 Beacon of hope	Safeguard against extinction
9.2 Exotic species	Only place to see exotic & particular animals
9.3 Reflection of wider world	Appreciate biodiversity
9.4 Necessity	In face of human impact on nature

9.5 Education & appreciation	Issues and what's needed to address
10. Concerns about zoos	
10.1 "Become a bit of a circus"	Future of zoos – if only have some species in captivity as extinct in wild
10.2 Only place to see some species	
11. Attitudes & interest in animals & natural world	
11.1 Perceptions of human-animal relationships	similarities between humans & animals, indifference to some animals/nature in general, societal disconnection from animals,
11.2 Pets	"Another heart beat in the house", therapeutic benefits
11.3 Everyday life	Animals/nature part/not part of everyday life
11.4 Care and conservation	
12. Visitor questions	
12.1 Zoo-based	Future plans, finances
12.2 Research-based	Outcomes from my research & how zoo will use it
13. Researcher-led interactions	Things I told them eg palm oil issue, care of Duchess
14. Good quotes	
15. Other	
16. For Zoo visit	

Appendix 15: Paignton Zoo Visitor Survey

Visitor Survey

PAIGNTON ZOO

Date of visit: .....

Postcode: .....

What was the purpose of your visit? *Please circle all that apply*

Enjoy time with family / friends | To learn / Education purposes | Relaxation

To see animals | For fun / Entertainment

Did we meet your expectations? *(1 = not at all and 10 = exceeded expectations)*

Please circle	1	2	3	4	5	6	7	8	9	10

Are our team friendly? (1 = not at all and 10 = extremely)

Please circle	1	2	3	4	5	6	7	8	9	10

Are our facilities clean and well maintained? *(1 = not at all and 10 = exceptional standards)*

Please circle										
Food outlets	1	2	3	4	5	6	7	8	9	10
Shop	1	2	3	4	5	6	7	8	9	10
Toilets	1	2	3	4	5	6	7	8	9	10
General site	1	2	3	4	5	6	7	8	9	10

How many talks did you go to?

Please circle	None	1	2	3	4	5	6	7	8	9	10

What impressed you most?

.....

What's the one thing that you would change?

.....

How likely is it that you would recommend us to a friend? *(1 = extremely unlikely and 10 = extremely likely)*

Please circle	0	1	2	3	4	5	6	7	8	9	10

Please turn over to continue

How did you hear about us? *Please circle all that apply*

TV Newspaper Billboard Zoo leaflet Radio

Website Bus side Bus shelter Word of mouth

Magazine Social media

Prize Draw

If you would like to enter our prize draw to win a Saver Ticket for two adults and two children, please enter your email address below and tick this box.

☐

Email address: .....

We would like to keep you up to date with our latest news, events, offers and fund raising activities.

Please tick the boxes to receive information about the following:

News and offers ☐ Events and activities ☐ Fundraising ☐

From: Paignton Zoo ☐ Living Coasts ☐ Newquay Zoo ☐

You can opt-out of receiving communications from us, or change your preferences, by contacting us at any time. We will never sell your personal information, and we will never share your data with third parties for marketing purposes.

For further details of our Privacy Policy, please visit our websites.

www.paigntonzoo.org.uk/about-us/privacy

www.livingcoasts.org.uk/about/privacy

www.newquayzoo.org.uk/about/privacy

PAIGNTON ZOO

Thank you for taking the time to complete this survey.

Don't forget to follow us on Facebook and Twitter and leave a review on Trip Advisor.

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